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My Pedagogic Creed.

By PATTERSON DUBOIS,

Author of "Beckonings from Little Hands" and "The Point of Contact in Teaching."

It is easier to know how to begin to formulate one's pedagogic (I should rather say educational) creed than to know just where to stop. Creeds are supposed to deal with fundamentals or essentials. There are fundamental psychological and sociological facts, and there are doctrines or theories of motive and of method. In a short statement of one's convictions, such as a creed is supposed to be, these facts and principles must be presented in some kind of proportion. What the limits of detail in statement should be is a problem in itself. Probably in such a series of articles as this, each author has a certain liberty to be disproportionate that he may accentuate certain facts, theories, or principles which may seem to him to have failed of due recognition, or which, for other reasons, have peculiar hold upon him.

Education is that process by which an individual is led to acquire ideals, and to realize them through his own self-activity. In a Christian education, these ideals are God-ward or Christ-like. It therefore aims to put the person in full possession of every natural power that makes for righteousness, and so to develop the whole nature, physical, intellectual, moral, and spiritual.

This constitutes the upbuilding of a character, or personality.

Inasmuch as, whether we eat or whether we drink, we should do all to the glory of God, there is, strictly speaking, no proper division between secular and religious education. In view of this, the Sunday-school ought to be in close touch with general educational movements, and it ought, so far as its educative purpose is concerned, to commend itself by reason of proper pedagogical methods to the sympathy and support of the professional educator as such.

Formal education must take cognizance both of what child nature is and of what the child as a social or conventionalized being must become. I have little sympathy with the doctrine of parallelism between the development of the race and the development of the individual child. Yet the child does come into an inheritance of race possessions or accumulations through the educative processes. I am convinced that the child early feels his right to be recognized as one of his race. He is, it is true, a very different sort of creature in

some ways from the adult, and is not to be regarded as undeveloped or diminutive man. Yet we do him injustice and injury by our continually passing on him a class judgment, and so make him feel himself outside, as it were, of the pale of common humanity. It is no sin or crime for him to be a child, child-like, but it is a sin for us to mention his childhood to him as though that were in itself his misfortune and something only to be tolerated. Whatever sense of unity with the race or social consciousness the child may come into, he must be a true child before he can become a true man. A too rapid development, that deprives a child of his childhood, means not enrichment but impoverishment. A stunted, suppressed, or slighted childhood cannot grow into the highest type of developed manhood.

The fundamental fact upon which I base my pedagogic creed, so far as I am conscious of having any creed capable of formulation, is that all consciousness is essentially motor; the idea of a movement is practically the beginning of that movement. This being so, every conscious state into which we are, consciously or unconsciously, instrumental in bringing another, will sooner or later result in an activity, habit forming or inhibitive, on the part of that other. Conversely, every activity deepens consciousness, and insures, in greater or less degree, its permanency.

Whatever theories we may hold biologically, I believe that pedagogically we have little, if anything, to do with heredity, of which we are at best very ignorant. But we have everything to do with environment. It is the part of environment to suggest ideals, and so utilize the potential of heredity, whatever it may chance to be.

This environment does not develop the child, but he develops himself by his own response or reaction to it. The drug does not cure the disease by acting upon the organism, but the organism cures itself by acting upon the drug. Food does not make flesh, but the living organism makes its own flesh by acting upon and appropriating the food. For the same reason, in supplying mental and moral food to the child, we must consider the mental or spiritual organism which is to react or respond to it. Hence we must always meet him on the plane of his own experience. We must start at his point of contact with life. We must address ourselves to some initial interest, ideal, instinct, or activity of his own, as the primary factor in our general procedure from knowns to unknowns.

Education is therefore not a matter of schools and homes alone, but of all life. The child is under a rain of forces or suggestions from without, to which he will, in one degree or another, react. Our office as his educators is to supervise these forces. Some must be directed, some deflected, some, in effect, counteracted. We must put him in the way of being impinged upon

by advantageous forces; we must defend him from the disadvantageous. But in neither process can we, or should we, be complete. Hence the child must grow into the consciousness of the necessity of choosing, acting, and overcoming for himself. We have the difficult problem of keeping his part and ours in right proportion. He must not be swamped too early with responsibilities of judgment, choice, and independent action; nor must he have his work done for him so that he grows up weak, irresponsive, and inert. He must learn to obey, but we must first be obedient to the divine law of child nature before we have a right to make a demand of obedience upon him. Obedience is just as imperative upon the man as upon the boy.

The prime obstacle to our doing the best that might be done for the child's education is our adult egotism. The shadow of ourselves obscures the child. We press upon him our formularies, our theologies and philosophies, our inverted orders of thought, our remote reasons, our inarticulate allusions, our institutional consciousness, and all that comes by experience and conventionality, and suppose that by talking these things in a jargon of mixed baby talk and technics we are meeting him on the plane of his experience. We lead him into evil by suggesting to him forms of evil not level or likely to his experience, and from which he is in no immediate danger. We misname his motives and his actions, and read into them significances of which he is entirely unconscious. Many an activity in a child has a different basal significance from that which the same activity has in his adult accusers, from whom he has taken it by suggestion and in innocent faith that they were his natural exemplars. We complain of the child's excessive activity instead of utilizing it, and think of him as a fellow-being to be corrected rather than directed, to be thwarted rather than understood; and we think more of being ourselves obeyed than of having him obedient. We are egotists always in the presence of children, and so do we impede their education instead of facilitating it.

Another obstacle is our satisfaction in interesting the child, or in gaining his attention. We do not stop to inquire what it is that he is attending to, or what it is that he is interested in, and above all what profound significance lies at the bottom of that close interest, that rapt attention.

While it is true that much can be accomplished doubtless by the cultivation of brain cells, it is also true that nothing but those experiences in which space, time, and remote causes are essential factors can make certain classes of concepts possible to the child mind. One thing is to be always remembered in dealing with the young child: that which is remote is out of his grasp. He deals with the immediate in space, time, cause, or interest. We must meet him with this limitation clearly in view, or we labor to no purpose.

Our duty as educators, formal or informal, then is, as I see it, comprehended in our office as warders of the child's environment. And this office has the threefold function already described of direction, deflection, and counteraction.

We direct when we address ourselves to the child consciously as instructors, bringing to him ideals through nature, literature, art, morals, or spiritual duties and aspirations. We deflect when, seeing the child subjected to all manner of unwise suggestion, unfair treatment, unnecessary hardship, cruelty, ill-timed conversation,

literature, pictures, or terrifying and brutalizing stories, we do what we can to draw off his attention or rescue him from the positive limbo or slavery of his custodians. We counteract when, having misjudged him, or having found him absorbing conversation which he should not hear (mayhap from good friends who sit at our table), we take every subsequent occasion to counteract the mischievous suggestion, which has already rooted itself in him as idea, and is consequently in the initial stages of formative self-activity.

It is not only the parent or the school teacher who ought to walk circumspectly in the presence of children. The obligation is on all. He whose "walk and conversation" have come under the keen observation of a child is a part of that child's suggestive environment. Hence the immense task of the professional educator, who has to estimate the relative values of these varied environing influences in adjusting his curriculum. This adjustment will be efficient in proportion as it results in putting the child in possession of his own powers through the exercise of his self-activity. It will be truly successful just so far as it develops that real nature and those ideals which are God's thought of the child and God's desire for him.

Vaterson Duldis

Philadelphia,

Genius in Children.

Andrew Lang, artist and litterateur, does not agree with Dr. Johnson that a genius is necessarily one who has "an infinite capacity for taking pains," and proceeds to prove his view of the case in an interesting article on "Genius in Childhood," contributed to the January number of the North American Review. Mr. Lang cites as the "greatest argument" against Dr. Johnson the score or more of prodigies known in history as "calculating boys," who were able to do, almost at a glance, complex mathematical calculations that would occupy ordinary mathematicians a long time with pen and pencil. "The answers flashed upon them; they saw them at a glance; they did not know how;" and their genius, or inner sight, as Mr. Lang calls it, is the very opposite from the capacity for taking pains. The same is true of youthful musical geniuses.

"This curious gift of mental, or inner, vision is certainly more common in children than in grown-up people. The creations of their own fancies are more vividly present to little boys and girls than to grown-up people. So far, almost all children are children of genius, and a man of genius is often what he is because he has retained this gift of childhood.

"As most children have many of the imaginative qualities of genius, the gift of vivid dreams, and as most children who are to be men of genius display little *special* power—except in music, arithmetic, and drawing—it is not an easy thing for parents to know whether they have a genius in the family or not!

"As far as I have studied the childhood of genius, it commonly shows itself less in performance than in *character*, and, alas, not agreeably! The future genius is often violent, ferocious, fond of solitude, disagreeable in society."

But unluckily sullen, dreamy, pugnacious boys are far from always turning out to be Napoleons, Byrons, and Shelleys. Many great men were called "dafties" in boyhood, but not all "dafties" become great men. But in most of the boyish "dafties" who afterwards turned out to be geniuses there was, like Scott, Byron, and Keats, "conspicuous intellect in the young genius."

"For my part, genius or no genius, I do hate a boy who 'shuns boyish sports,' as you so often read in biographies. But, on a general survey of genius in childhood, I think that we ought to try to put up with it, and not bully it at school, 'at least as far as we are able.

"It the genius is a born artist, he is likely to be popular for drawing dogs, horses, and the schoolmaster. If he is going to be a poet -why one rather pities him in his school days. A Scott, a Keats, may make himself respected at school, by a genial readiness to fight all challengers, to take part in every dangerous diversion. A Cowper, or a Shelley should probably not be sent to school at all, and genius rarely passes through the university without what Coleridge calls 'a row.'

"These troubles and sorrows come, because, whatever else genius may be, it is certainly a thing apart, self-centered, and ill to

"Even in childhood, also, it is a mistake to try to drive genius, a mistake which naturally flows from Dr. Johnson's theory, that the spiritual force can be turned into any chosen direction. Following the doctor, parents will endeavor to make a boy with a genius for literature take to law or to civil engineering. fort was made with Mr. R. L. Stevenson, and, of course, failed.

"You cannot recognize literary genius, in boyhood, by results." Musical, mathematical, mechanical, and artistic excellence are, for some reason, much more easily recognized, almost from the first.

"Perhaps these remarks may console parents of lonely, dreamy, moody, ungovernable sons. Perhaps they may modify the contempt of schoolboys for 'dafties.' Don't bully such lads; don't thwart them needlessly. They may be children of promise, though the odds, unluckily, are against any future performance.

"At all events, do not drive them too hard into uncongenial industries. An instinct wiser than experience may be guiding them into the way appointed. They must and will go their own way. Still, had I a son, who displayed, like Mr. D. D. Home, a genius for being a medium, I certainly should thwart him to the full extent of 'the resources of civilization.""

Quite a Spell.

Do you ever get mixed up in spelling,
With "physic" and "phthisic" and such?
Will you, as a favor, please tell me
Why "t's" not inserted in much?
It's no wonder that "much" should be jealous Of "t" in that crippleish "crutch!

Did you ever take time to consider
Why "programme" is spelt with an "e"?
It's stupid and senseless to some folks
That "gnashing's" preceded by "g."
And roaches are righteously jealous
Of "a" in that cute little "flea."

I've thought and I've thunk till I'm crazy, And wondered what they were about Pronouncing that "route" in a manner As if 'twere defeat and a "rout." And what is that little "b" doing In a dubious wordlet like "doubt?"

I've sat up till two in the morning Ofttimes, before going to bed,
To find out what business "a-i" had
In a simple young wordlet like "said."
You "read"; when the volume is finished You then say the book you have "red."

You visit your tailor and tell him To measure your form for a "suit"; But you never could write to your shoeman

To send you a new style of "buit."

And if you spelled "water" like "daughter"

They'd call you a crazy galoot.

There are "dying" and "sighing" and "guying,"
And "lecherous," and "treacherous," and "neigh."
A "sweet suite of rooms" and a "valet,"
"O. K." and "obey" and "au fait."
But—you can spell as you want to in future,
As for me—I'll just spell my ewn way.
—Howard Saxby in Cincinnati Enquirer.

Does Education Pay?

[A few thoughts from an address by State Supt. Nathan C. Schaeffer, of Pennsylvania.]

You cannot exhibit the products of the school-room at a county fair as you can the products of a farm; but the increase in the earning power of people through education can be shown in dollars and cents. Wherever the percentage of illiteracy is high the average earning power is low. The examination of all the records and statistics shows that the better educated the industrial classes are the better is the condition of all the industries. These statistics prove that education does pay. A nation never makes a better investment than when it invests in brains, by getting the best teachers in the market for the education of its children. This, however, is valuing education from the lowest point of view. Those things which make life really worth living cannot be bought with dollars and cents, but are the result of education. The man who can live a higher and nobler life is not the uneducated man who possesses millons, but the man who is educated

" It pays to educate, and if it does then it pays to compel people to be educated."

An Old-Fashioned Lesson.

Why do the honey-bees suck from the clover Sweets upon sweets through the long summer day?
They work to have honey, a plenty and over,
When all the bright summer has vanished away,
Some day, little ones, would be ability and away. Some day, little ones, you'll be children no longer; But what you are now will ever be part Of what you shall be—and stronger and stronger The seed of the future still grows in each heart.
Then fill your young lives full of sunshine and beauty;
Think purely, speak kindly, act nobly, each day
With glad willing hearts do each little duty,
That when childhood is gone its sweetness may stay.



FIRST TROUBLES OF A YOUNG ARTIST. (From the original painting by E. Stieler.)

Comparative Child Studies.

INTELLECTS OF WHITE AND NEGRO CHILDREN.

WASHINGTON, D. C .- Mr. George R. Stetson, a scientific investigator of this city, has made a number of very interesting experiments to secure data for a psychological comparison of the intellectual powers of white and negro children. He is a gentleman of means, who says he has devoted twenty years to a close study of the negro race, especially in its comparison with the

The readers of THE SCHOOL JOURNAL will be particularly interested in the tests made with five hundred white and five hundred negro children of the public schools of this city. Mr. Stetson's experiments, the Evening Star says were made partly by himself and partly through two specialists. The one thousand children examined were of the fourth and fifth grades. The purpose of the investigation made by Mr. Stetson in person was a comparison of the memories of the whites and negroes. The average age of the five hundred white children examined was eleven years. The eldest white child was eleven years and the youngest eight. The average age of the negro children was 12.57 years, the eldest being eighteen and the youngest eight.

In each school-room visited, Mr. Stetson gathered before him from twenty to forty children. Of these he would ask undivided attention, and then he would recite one of four simple verses written for children by Eugene Field. Having recited the verse, he explained all of the difficult words. The class was next required to recite the same verse in concert, twice repeating, Each child was afterward received by Mr. Stetson in private, and was asked to repeat his individual recollection of the verse. The degree of each subject's proficiency was marked according to the merit system in vogue in the Washington public schools, "E" indicated excellent, or 100: "G," good, or 75; "F," fair, or 50; "P," poor, or 25.

The verses employed were as follows:

"Give me my bow," said Robin Hood, "An arrow give to me,
And where 'tis shot, mark thou that spot,
For there my grave shall be."

"I once knew all the birds that came And nested in our orchard trees: For every flower I had a name, My friends were woodchucks, toads, and bees,"

"One night a tiny dewdrop fell Into the bosom of a rose;
'Dear little one, I love thee well, Be ever here thy sweet repose."

" My shepherd is the Lord my God, There is no want I know; His flock He leads in verdant meads Where tranquil waters flow.

Mr. Stetson's notes upon these tests give some interesting figures. In their average of memory retention the negroes excelled the whites in all of the tests, except with the last number. For the first verse the negroes had a general average of 63.22; whites, 62.54; second verse, negroes, 62.86; whites, 58.92; third verse, negroes, 65.64; whites, 54.54; fourth verse, negroes, 32.93; whites, 42.14. The total averages show that the negroes exceeded the whites by 18 per cent., that of the former being 58.27 and of the latter 58.09.

Mr. Stetson considers this close correspondence in the memory rank of each race to be remarkable, and says that it was unexpected. If there is any truth in the theory that voluntary or controlled attention, distinctive from spontaneous attention, is a result of civilization, then, in Mr. Stetson's opinion, there is an apparent equality of development in the two races which he exam-

Mr. Stetson also looked up the records of scholarship for the children of both colors and compared them with their memory averages. He found a close correspondence in the two. The average attained by the negroes in studies was 64,73, that by the whites, 74.32. In making these comparisons he says allowance must be made for excessive or insufficient markings on the part

of the different teachers on the one hand, and for the children's fear of embarrassment, caused by reciting to a stranger, on the other. Mr. Stetson says he is convinced that if the study and memory markings were made by the one person they would correspond still more closely.

From his experience with the negroes and whites, and from the results of this examination, Mr. Stetson derives the impression that there is an enfeeblement of the memory of both races. This enfeeblement of the memory is accompanied in both races by a parallel decline in the powers of sight and hearing, and is apparently due to neglect in training the attention and of compulsory exercise of the memory.

Although the memory rank of the negroes exceeded their rank in studies much more than did that of the whites exceed their study rank, yet the negroes appeared to be inferior in intellect. This was shown by the average ages at which the grades were attained by both races. The negroes reached the fourth grade at the average age of twelve years and the fifth at 13.14 years, The whites reached the fourth grade at the average age of 10,63 years, and the fifth at 11.4. The difference in favor of the whites, therefore, is 1.37 years in the fourth, and 1.74 years in the fifth

Mr. Stetson found in both races a better knowledge of the signs or symbols used than of the things signified. In other words, sentences could be learned and recited, parrot-fashion, without any appreciation of their meaning. "In both races," says Mr. Stetson, "there is a too great reliance on exterior aids, and a neglect, deficiency, or failure in habits of thought or the ability to think clearly, which makes it difficult for the child to use its own natural mental gifts, and which ultimately results in a loss of brain power, and an inability to assimilate or to determine the general principles to be derived from the great variety of particular knowledge presented in our school curricula."

EYE AND EAR TESTS.

The same children were used in an additional study of the relative senses of sight and hearing. These tests were made under Mr. Stetson's direction by Dr. E. Oliver Belt, ophthalmologist, and Dr. Johnson Eliot, otologist. The tests of vision were made with charts and typographic scales, containing series of letters of dif-The tests of hearing were made with the watch or ferent sizes. tuning fork.

Of the 1,000 eyes of the whites, Mr. Stetson says 16.6 per cent. were below normal, 7.2 per cent, were defective or very defective. Of the 1,000 ears of the whites 19.5 per cent. had hearing below normal, 4.9 per cent, being classed as defective and very defective. Of the 1,000 eyes of the negroes 20.6 per cent. were below normal in powers of vision, 7.3 per cent. being defective and very defective. Of the 1,000 ears of the negroes 19.3 had hearing below normal and 6.2 were defective or very defective. Taken together the defects of vision were found to be 3.46 greater in the negroes. The defects of hearing were about equal in both races. There appeared to be very little difference in the general acuteness of either the right or left side, as far as either the ear or eve was concerned.

Dividing both races according to sex, it is found that the greater percentage of defective eyes in both races is found in the whitefemales. In the whites the female eye and ear are both the more defective, while in the negroes the female has the more defective eye and the male the more defective ear. On the whole the eyes of both races and both sexes were found to be better than the

Mr. Stetson considers the averages for both eye and ear defects in the Washington children to be comparatively low. This may be accounted for by the fact that Washington school-rooms are well lighted and well ventilated, while here, says he, the homes of the poorer classes are superior to most cities of like population in hygienic condition. In this city, he says, the number of study hours is less and the number of exercise hours greater than in England, France, or Germany. In Berlin, for instance, public school children must attend school 1,472 hours per year, while in Washington they need attend only 900 hours per year. A much greater percentage of pupils have been found with defect-

ive vision both in English schools and those of this country than here in this city. Of 1,400 white children examined in England and America as many as 35,12 per cent. were found with eyesight below normal. This average is over 14 per cent. greater than the average for the 1,000 eyes of the negroes tested in this city, which were more defective than those of the whites of Wash-

ington.

The children selected by Mr. Stetson from the negroes were as dark as could be found in the classes. He says that negroes of absolutely unmixed blood are rare in our large centers of population, and that it would be interesting to have a similar examination made in smaller communities of negroes, for instance, in isolated districts, like the islands of the Atlantic seaboard.

Courses of Study for Elementary Schools.

Arithmetic, III.

FIRST YEAR.

- 1. Objects will be used and the pupil taught to make the figure representing the number; four objects, for example, are shown and the pupil writes 4, etc. The combinations of four, for example will be taught, as 1+1+1+1; 3+1; 2+2, etc. See the Grube
- 2. Problems will be given as they learn numbers; for example, when they learn 2, problems involving 2 will be given, so of 3, 4, The pupils will be asked for problems also; they must learn to think with numbers.
- 3. Teach to place small numbers under each other in columns and add; begin with using only 2 and 1; then 1, 2, 3, etc., the sum should not exceed 20; proceed on slowly and not tire them
- 4. Toy money made of cards interests; 25 cents in such money is given, two, three, or four articles are bought and the change required.
- 5. They are taught to know one half of 2, 4, 6, 8, 10, 12; one third of 3, 6, 9, 12; one fourth of 4, 8, 12.
- 6. After the Arabic numbers are well learned show a watch or clock, and teach the Roman characters by progressive lessons, first using 1, then V, then X; not above 25.
- 7. The measures for gill, pint, and quart should be put in the hands of the pupils using sawdust; a foot-rule also, and they measure desks and tables; with objects as beans they count out dozens and half dozens; also to know the weeks in a month, the months in a year.
- 8. By using paper circles the half will be shown; then the fourth, then the eighth, then the third; the figures taught which express these. Two halves will be laid down. How many halves? Then three. How many? The same plan with fourths, eighths, and thirds.
- 9. The paper circle will be cut into halves, the half cut into fourths, etc. They will see that $\frac{1}{2} = \frac{2}{4}$, also $\frac{1}{2} = \frac{4}{8}$, etc., and learn how to change the forms of halves to fourths and eighths and the
- 10. They will need to practice making addition tables; all combinations with 1 for example can be copied from charts as

1+1=

1+2=

1+3=; etc.

They will complete the statement. Tables in subtraction will follow: by copying from the chart they will learn to put their work in a systematic form. They will also make multiplication and division tables.

> three in 3-time 2 threes= " 6

" 9 3 threes=

There must be much drill on the combinations. A chart (it may be home-made) is the most convenient, the pupil uses a pointer and says, "one three is three," etc. Also she points to a combination and names the pupil who gives the result. (It is not expected that children during the first year will learn the entire multiplication table, only the combinations up to 12. They can easily learn to write numbers even up to thousands. The lessons should be short.)

SECOND YEAR.

- 11. The combinations of numbers up to 20 will be taught, and the writing of numbers to 50 and even beyond. If they have been well drilled they will handle the numbers proposed as 13, 14, etc., with readiness. Eleven is shown to be one ten and one; twelve one ten and two, etc.; (thus they learn that a figure at left one place is ten times the other). Ten splints tied into a bundle with two splints explains 12; the pupil should have splints and make such combinations; rubber bands are convenient. The signs $+ - \times \div =$ will be used in written work and thus learned.
- 12. Continuing Sug. 3, columns of 2 may be used (not to sum up above 20) also those with 3, 4, 5. Numbers can be put down and 2 under each for subtraction, use also 3, 4, 5, etc. This is to familiarize them with the form.
- 13. Continue and broaden the problems suggested in No. 2; ally one operation ordinarily should be employed in these, they will be made by both teacher and pupil.
- 14. Some diagrams may be employed and thus drawing be required; "John has four squares and Henry has five;" thus with flags, chairs, etc. But objects not readily made should not be proposed. Continue to use the foot rule.
- 15. Figures must be looked at as a kind of written language and the pupil taught to employ them in plant study as in giving the number of parts in a flower, the number of teeth in an ani-
- 16. Suggestion 4 should be followed, the pupils having cards representing 50 cents and one dollar, making purchases and getting change, the number of 5 cent pieces, 10 cent pieces, 25 cent pieces, and 50 cent pieces in a dollar firmly fixed in the memory.
- 17. Daily practice in adding in columns; these put on charts can be copied. See Sug. 12. Rapid drill work on charts should be given as 3 2 5 4 6 8 7 9 1

 2 2 2 2 2 2 2 2 2 2

; so with 6.

- 18. The making of tables, see Sug 10, is an excellent means of drilling the combinations; this is good busy work.
- 19. They will be taught to write the ordinals as "the first book" "the second book." etc., also to use the figures and letters 1st, 2nd, etc. Also the Roman numbers to 39.
- 20. (a) Suggestion 15 will be extended, the pupils giving problems arising in their experience.
- (b) During this year teach to add and subtract like fractions (b) During this year teach to add and subtract like flatching using the paper circles. See Sugs. 8 and 9. They will convert halves into fourths, etc., and the reverse; by grouping halves, etc., they will learn to multiply, also to divide halves, etc., into groups; but not to teach the rules for the management of fractions; let them learn by seeing.
- (c) Beyond 12, see Sug. 5, they can learn to take fractional parts of 14, 15, 16, 18, 20, 24. One third of 24 is what; one twelfth? one eighth? etc. This should be shown by objects; splints are most convenient. Take 12 splints, divide into two equal parts, how many in each? What is each part called? One half of twelve is how many? Mary may state it, etc.
- (d) Give one drill combining multiplication and addition. Three twos and one; etc. Give division drill. Threes in 10? Fours in 9, etc.

THIRD YEAR.

- 21. By having splints in bundles of ten make all numbers an express in figures up to 100; teach the writing of all numbers up to 1000. Teach the use of Roman C and D. Show law of combining I, V, X, and C.
- 22. Teach to add and subtract numbers like 28, 36, etc. on the multiplication table to 12 x 12. Use a chart on which factors are written as 3 x = , 5 x 7 =, etc.; they copy and complete.
- 23, Let them make multiplication tables for themselves. A simple form is 2 5 4 7 3 6 9 8 10

4 10 8 14 6 12 18 16 20

- 24. Practice adding 2's, 3's, 4's, etc., so as to acquire rapidity, not going above 50. It is best to have a column of 2's on a chart, etc., do add as yet without a column to look at.

 25. Easy problems in liquid, dry, long, and surface measures, will be solved as pints to quarts and the reverse, etc. See 7.

 26. Continue the factoring of divisible numbers 12 to 150 so
- they are ready to use. See 5. 27. Note 20 b, fractions will be taken up more extensively; elevenths, twelfths, fiftieths, and hundreds: illustrate them objectively and teach expression by figures. Formal work in fractions is not appropriate as yet.
- 28. Toy money exercises continued, make change by adding, thus 27 cents from a half dollar is 27+3+10+10.
- 29. The addition of columns will be a frequent practice; see
 - 30. The work of this grade covers problems in the four rules,

but the numbers are not to be beyond 1000; the multiplication and division not over 12; a suitable book will be used. Problems will be drawn from the pupils observation. See 20. There will be many mental problems given.

The measures of length should be used in and about the schoolroom; they should estimate lengths and heights. The various de-nominate units should be used by the pupils in problems; John bought 2 qts., then 5 qts., etc.

FOURTH YEAR.

31. They will write numbers up to millions; decimals are to be written to thousandths. In reading a number like 4,345 say 4 thousands, 3 hundreds, 45. In numbers like 4.345 read 4 and 345 thousands, 3 hundreds, 45. In numbers like 4., thousandths—using and for the decimal point.

32. The four rules will be applied to numbers not over 10,000, the multipliers and divisors may have two or three places; apply the four rules also to decimals; also to United States money.

33. There should be many oral and written problems that demand rapid pencil work.

34. Problems in mensuration, length, area, weight, volume, etc., will be given.

35. The problems may be in books, on cards, or be dictated or furnished by pupils. They may demand now two operations. Correlate with other studies.

36. Analyses should be given, the pupil stating his steps methodically. If a diagram can be employed be sure to use it.

37. In fractions teach to change over-units to integers and the reverse, to larger terms and the reverse.

38. Teach to add like and unlike fractions up to 12ths; drill for rapidity.

39. Apply the four rules to all donominate numbers; teach redu tion in book forms; illustrate with diagrams and blocks.

40. Teach to read and write numbers to billions and decimal fractions beyond thousandths.

41. Give daily practice on the fundamental operation aiming at rapidity and accuracy. See 24.

42. Problems in addition and subtraction, with decimal fractions, multiply and divide them by integers. Teach to divide one sum of money by another.

43. Teach the addition, subtraction, and division of like and unlike fractions. See 27, 38.

44. Teach the multiplication of fractions; identifying compound fractions with this.

45. Teach the properties of numbers, also the least common multiple.

46. Give practical problems in measuring surfaces, in finding contents of rooms, bins, boxes, lumber, and piles of wood; derived from pupils' observations as far as possible. Continue 40.

47. Teach how to measure circles and triangles, and parallelograms, using diagrams.

48. Teach percentage showing the three forms as \$\frac{1}{4}\$, \$\frac{1}{160}\$, 25%; apply this to other units before United States money as 6% of 250 pens, horses, etc. Allow use of the first form in problems as 20%

49. See 37; there should be a statement of the steps in solution "First, I find, etc. Second, I find, etc."; teach to proceed system-

50. As the ready employment of the four rules is the test that will be applied to the teaching of arithmetic, there must be constant practice in them. See 34 and 42. The problems in mental arithmetics, will be suitable for daily practice, new problems are better than memorized ones

51. Let the pupils construct problems for each other. See 36,

52. A number of things (as 6 lbs. of raisins at 18 cents) can be written on the blackboard or manilla sheet and the pupils make these into bills to each other, obtain payment. See 4, and give receipt.

53. The work with fractions will now be systematic and follows that usually laid down in books. (1) Change form (2) a, add, subtract, and divide like fractions b unlike, do. (3) Multiplication of fractions and reduction of compound, do., as identical operations. (4) Division of fractions and reduction of complex as identical operations. (5) Relation of number with aliquot parts, $\frac{1}{2}$ of 12 is what part of 24, etc.

54. Follow a similar course with decimal fractions, including the changing of these into compound fractions and the reverse.

55. Give exercises in percentage with various applications (without time, as yet); changing fractions to per cents. and the reverse. See 49.

56. Give exercises in finding per cents, of numbers as fractional parts of them, as 16 is what per cent. of 100, etc. Problems also like this; a pencil was sold for 12 cents and 20 per cent. made; what was the cost? See 52.

57. Apply analysis and system to all processes taught. See 50, 54, 55.

58. In teaching fractions let oral work precede written work; keep denominators small, see 8, 9, 27, 38, 39.

59. Review denominate numbers; see 40. Let problems be invented, see 52.

SEVENTH YEAR.

60. Teach compound numbers in both ascending and descending scales. See 25, 35, 40, 47.

61. Employ fractional applications in compound numbers.

62. Teach and apply the metric system; (1) show or give each a meter; (2) teach sub-multiplies deci, centi. milli; (3) the multiplies decka, hecto, kilo; (4) show the standard units, (5) teach the tables. (6) Practice the reductions. (7) Employ the four rules. (This subject may be postponed; it is not best to devote much time to it in the average school.)

63. Teach fractional parts of 100 as $\frac{1}{3}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{10}$; also of 30 and 60.

64. Teach percentage (without time) see 56.

65. Apply percentage to all kinds of units advancing from 57. 66. Have problems solved analytically and systematically. See

EIGHTH YEAR.

67. Teach the application of percentage to profit and loss, commission, brokerage, stocks, and insurance.

68. Apply percentage to interest. 69. Apply percentage to discount.
70. Teach ratio, and proportion.

71. Teach mensuration.

72. Show specimens of business papers and give problems arising from them, as notes, checks, bonds, bank notes; teach the commercial principles involved in them. Explain the technical terms employed.

73. Teach to frame definitions and state rules for the various operations, also to state method of procedure in solution without performing it. Also to state the operations to be employed. See 63; if metric system was omitted it can be taken up here.

The Old Arithmetic.

I was delving in the garret and I came upon it there With a lot of tattered fellows, underneath a crippled chair; And I opened it, delighted, dreaming of the days agone When I writhed in mental torture at the acts of James and John.

There it was, that dog-eared volume which had prompted boyish

Many a time and very often in those distant, dismal years; There it was with all its tables and its figures and the names Of those youthful malefactors noted down as John and James.

As I turned the ragged pages, once again before my view Rose our class of earnest youngsters of the days of '62; Mame Kirkpatrick—first as usual—she was a phenomenon Chalking down the proper answer in the case of James and John.

Once again there came an urchin weirdly patched at either knee, Staring sadly at the blackboard. (Figures always bothered me.)
And again I heard a whisper and the voice I knew for Mame's:—
"Take six dollars from the quotient. Answer:—Sixty cents for

So I chalked it down exultant, and the master, having heard Of that gentle prompting whisper not the fraction of a word, Complimented me for quickness—but in sadness said anon: You should credit James with sixty. You have marked it down for John.

Ah, the old school days have vanished with their problems and

their woes, With their "rules" and their "divisors" and their "multiples"and those

Restless youth forever trading till I sickened of their names And declared a fierce vendetta unto all called John or James.

Listen! It is Mamie singing, and her voice is sweet as when She was prompting me in class time. (How it all comes back

again!)
It must be the twins are waking; I shall just look in upon
Those exemplars of perfection named by her as James and John.
—Chicago Record.

Letters.

"When Does the Next Century Begin?"

This seems to be a plain case of "Much Ado About Nothing." This seems to be a plain case of "Much Ado About Nothing." It is altogether probable that the next century will begin as soon as the present century ends. When this century will end depends upon when it began, and this again depends upon when the preceding one ended, and so on back to the "beginning." A century is supposed to be a period of 100 years. If it is, then the first century ended with the last day of the one-hundredth year; hence the next, or second, century began with the first day of the 101st year, or Jan. 1, 101. Similarly it must be concluded that the 20th century begins with the first day of the 1901st year, or Jan. 1, 1901.

Jan. 1, 1901.

It occurs to laymen, who are not "smart fellows," that the extended discussion in London indicates "fog" of more than one kind in that locality. It matters not whether we start at o or 1 or —1, or whether we talk of "ordinals" or "cardinals," the fact remains that at the end of 1900 years 19 centuries will have passed, and the 20th century will begin with the beginning of the next year, Jan. 1, 1901. It may be curious that some "smart fellows" maintain this position, but it would be more curious if they did not.

J. K. Ellwood.

Pittsburg, Pa.

Are You a Student of Educational History?

It is with great pleasure that I am reading the brief, but comprehensive and exceedingly interesting little book "Great Teachers of Four Centuries."

In this wonderful 19th century of ours when some few colleges and universities are beginning to realize the need of a department of pedagogy in connection with their institution of learning, and have the moral courage to acknowledge this fact by creating such a department for the training of secondary teachers; when "higher education for women" is at last acknowledged to be feasible and best; when physical culture, drawing, and music have been, and by many are still called "fads;" when it is not yet recognized by the public that our best trained and strongest teachers are needed most in the primary grades; and when colleges are at swords' points with each other as to the relative value of and the time that should be given to Latin, Greek, and English in both secondary schools and colleges, it is exceedingly interesting to read in this little book the "Educational Contentions" of Richard Mulcaster, a celebrated English teacher of the 16th century. In this wonderful 19th century of ours when some few coler of the 16th century.

er of the 16th century.

Mulcaster says:

"Higher education for girls who have good abilities.

"Training colleges for teachers.

"Physical training for all—boys and girls, teachers and pupils.

"The best masters to take the lowest classes.

"Drawing and music to be taught in every school, not as 'extras,' but as essentials."

He also says: "I love Rome, but London better; I favor Italy, but England more. I honor the Latin, but I worship the English. I honor foreign tongues, but wish my own to be par-Italy, but England more. I honor the Latin, but I worship the English. I honor foreign tongues, but wish my own to be partaker of their honor. * * * Why should not all of us write in English? * * * I do not think that any language, be it whatsoever, is better able to utter all arguments either with more pith or greater plainness than our English tongue * * not any whit behind either the subtile Greek for crouching close or the stately Latin for spreading fair."

Nearly four centuries since Mulcaster, and his truths but partially learned by mankind!

Would it not be well for all teachers to be students of the his-

Would it not be well for all teachers to be students of the history of education? Would they not learn that the many topics of vital interest to day are in reality very old? And could they not by tracing the course of education down through the centuries, find, perhaps, why these old truths were not long ago practically interwoven into our school systems?

ADELAIDE V. FINCH, Principal, Training School.

Lewiston, Maine.

Harvard university has offered Secretary Olney the position of professor of international law. Mr. Olney has the matter under consideration and will probably accept it if it does not interfere too much with his law practice,

Mardi Gras-New Orleans.

The Southern Railway, the direct line between New York and New Orleans, announces one fare, round trip rates, from Washington to New Orleans. Tickets for sale on Feb. 26 to March 1, inclusive, and good to return within fitteen days from date of sale. The time between New York and New Orleans is thirty-nine hours, and the service is perfect in every respect. Dining and sleeping cars on the limited trains. For further information, call on or address New York Office, 271 Broadway.

Timely Topics.

The so-called reforms which Spain proposes to give to Cuba suit neither side; the Spaniards think they yield too much and the Cubans distrust them. From our point of view, instead of granting Cuba self-government they are only a mockery. The new governing body is to have twenty-one members elected by popular vote, six chosen by the corporations, and eight appointed by the corporations of the components. by the crown. Now the restrictions on suffrage are so cunningly contrived that only a small per cent. of the people vote, perhaps not over one-seventh of the proportion that have the right of suffrage in Spain. Therefore of the twenty-one elective memsuffrage in Spain. Therefore of the twenty-one elective members, probably not more than one-third would be native Cubans. The majority would be against them and the old abuses would go on as before. The governor-general's power to appoint all high officials, the condition that the tariff shall allow a protective margin of twenty per cent, to Spanish goods against foreign goods, and the government's power to "adopt measures against these reforms when needed to suppress rebellious movements," all prove that the control of the island is to be Spanish, not Cuban

When the government is turned over to Mr. McKinley the politicians will be treated to a great surprise; that is, they will realize for the first time how far-reaching is the civil service reform that has been going on during the administration of Pres. Cleveland. There will be the same rush for offices as before; indeed, congressmen and senators are even now overwhelmed with applications, but the offices will not be forthcoming. The with applications, but the offices will not be forthcoming. The day of the spoilsman seems to be about over. Only a few months ago Pres. Cleveland issued an order putting about 30,000 additional employees of the government under the civil service rules. This takes nearly all. It is said that outside of the appointments to be made by the president and confirmed by the senate there are not more than 10,000 offices that are still a prey to the spoilsman. All the rest must be filled by competitive examination.

A bill has been introduced into Congress providing for the establishment on Romer shoals in New York harbor of revolving turrets, for harbor defense. This is a return to the Monitor idea, which was first used practically in Ericsson's war vessel. It is not generally known, however, that Ericsson did not originate this revolving turret idea, but simply applied it to a warden. It was originated by Theodore R. Timby, a young American, in 1842, whose intention was to apply it to land forts. Ericsson recognized Timby's claim as inventor and patentee, and paidhim for many years a royalty for the use of his invention.

It is reported from San Francisco that the Six Companies, the most powerful and richest Chinese organization in America, has most powerful and richest Chinese organization in America, has just gone out of existence. For years it was the banker, counsellor, and diplomatic agent of every Chinese in America while he lived, the administrator of his estate, guardian of his ashes, protector of his relatives, and almoner of his alms after his death. It took part in the disputes, business and personal, between the Chinese throughout the country and the agency through which the police, and even the state department, dealt with that

The British chancellor of the exchequer recently announced that a further advance of Egyptian troops would be made towards Khartoum next season. He added, further, that Great Britain would occupy Egypt until that country was able to do without her. In some quarters this is looked upon as a challenge to France and Russia. That Great Britain seems determined to be ready for war if it should come, is shown by the fact that the navy is to be increased by five battle ships and three first-class cruisers and to common men. cruisers and 10,000 more men.

The location of a bullet in a Bellevue hospital patient's head was recently found by means of the X rays, and the bullet was extracted. The patient has recovered, but the side of his head which was exposed to the rays is now entirely bald.

The impossibility of Christians and Mohammedans living to-The impossibility of Christians and Mohammedans living together in entire harmony causes disturbances in one part or another of the Turkish empire almost constantly. Desperate fighting has lately occurred in the island of Crete. The Mohammedans set fire to the city of Canea; the wretched Christians driven out by the flames were shot down ruthlessly by the Turkish soldiers. Greece sent two warships to the island and French and English marines were landed. The Christains of Crete desire to be annexed to Greece, and will never be satisfied until they attain their object.

until they atta'n their object.

The state of New York is doing a great work in the way of propagating fish and game. Its commission appointed for that purpose last year planted in the waters of the state 191,726,678 fish of various kinds, all the eggs having been taken from stock fish at the hatching station ponds, or secured from wild waters in the state; these and those taken from the state hatcheries bring the total up to 219,144,211. One of the most notable enterprises of the commission is the attempt to make the Hudson a salmon river. About 3,500,000 young salmon have been placed in this river in the past fifteen years.

The School Journal.

NEW YORK & CHICAGO.

WEEK ENDING FEBRUARY 13, 1897.

Teachers everywhere should watch the law-makers of their respective states very closely in all matters that are claimed to be devised in the interest of the schools. Every state teachers' association should have a standing committee on school legislation and should insist that this committee be consulted whenever a so-called educational bill is introduced in the legislature. In matters concerning text-book legislation teachers must be particularly on their guard. Unscrupulous politicians sometimes make bills of this kind a club with which they hope to scare reputable publishing houses into paying to them, or to the party they represent, a revenue. This extortion scheme is well-known to the "practical" politician and if he finds that the people can be bamboozled by pretences of "economy in expenditures," dire threats of "death to the trusts," and other guffaw, there is no telling when he sets it in operation. Moral -keep your eye on the "educational" legislators who avoid consulting with the state superintendent and the representatives of the teachers of the state.

In Illinois and New York attempts are being made to secure logislation that will turn the publication of text-books over to the penitentiaries. There actually are a few misguided teachers of strongly socialistic views who think this project of unadulterated asininity might not be so bad after all. One New York legislator has already proposed to have the state appropriate \$150,000 for the practical inauguration of the era of "prison-made" books. The State Teachers' Association ought to take immediate action. Let the executive committee open a newspaper campaign to save the state from this shameful outrage. Every superintendent ought to take a hand in this fight. County Supt. Orville T. Bright, of Chicago, is doing his share to convince the people of Illinois that the printing that would be done in the prisons would be poor and the subject matter worthless, for no one worth employing would be willing to sell his ideas to the penitentiary to be issued from there. Let others follow his example. Mr. J. R. Bouton, of Sparland, Ill., in a letter to the Chicago Record suggests that at the meetings of every teachers' association resolutions should be passed condemning the scheme of prison-made school books in round terms and copies sent to the respective representatives. This is a good plan, but the parents and the citizens generally should also be interested in the matter. The teachers must not flatter themselves that they are strong enough to fight it out alone. Experience has shown that they cannot hope to win if they are not energetically assisted by the newspapers and tax payers. Legislative stupidity and rascality are not easily frightened when united for some purpose. It takes almost a deluge of popular condemnation to shake them. However, organized agitation will do a great deal, and the teachers ought to be the leaders of the movement; the people expect them to be most deeply interested in all matters concerning the educational welfare of the children.

Supt. Gilbert has prepared an excellent program for the meeting of the Department of Superintendence. Almost every single number is a drawing feature. It will not be the fault of the program if the Indianapolis meeting is not a record-breaker in point of attendance. Besides, the best possible railroad and hotel rates have been secured. The East will send a larger delegation than ever before. Unless we are very much mistaken in our calculations, we hope to be able to report that the attendance was over two thousand.

All who are interested in the practical promotion of the movement for a bona fide professional certification of teachers are urged to participate in the round table conference on "National Teachers' Certificates," at Indianapolis, on Tuesday afternoon, February 16. The first step to be thoroughly discussed is how to formulate a standard of professional qualification, one that does not consist of mere generalities as does the plan suggested in the report of the Committee of Fifteen, but one which enters into details and leaves no doubt as to what demands the public can reasonably make upon a candidate for a position in the common schools. The Department of Superintendence would do a great deal for the progress of the cause if it should organize a special committee to consider this matter. If no more could be done at present than to define clearly the minimum standard of professional qualification, a great deal would be won. This standard could then be submitted to the legislative bodies of the several states for ratification, and certificates issued to all teachers who meet these requirements. A third problem pressing for solution is how to get the various local boards of education to recognize the highest diploma issued in their respective states as satisfactory evidence of a teacher's professional standing. This is really the great question now before the educators of the country, and it must not be allowed to be pushed into the background by obscurantists who are afraid of the changes that are sure to follow in the wake of the new departure. By focusing the eye on the ideal of national certification there is hope that the questions involved in the ascending of the steps leading up to it, will be solved in the best possible way. The Indianapolis meeting of the Department of Superintendence may result in a practical plan of getting the movemen; well under way, if those who have given the subject careful attention will aid to make the conference a success.

The program of the meeting of the Department of Superintendence to be held at Indianapolis next week, February 16, 17, and 18, was published in The School Journal on January 23. The address on Tuesday evening, February 16, will be by Professor Edmund J. James, of the University of Chicago, on "The Public High School the College of the Future." The subject is one to which Prof. James has given much thought, and superintendents and educators generally who can manage to go to Indianapolis will find his treatment of it a rare treat. As this address was added to the program only a few days ago, the readers of The School Journal are requested to give the announcement as great publicity as possible.

Editorial Letter.

During the past month I had been frequently questioned, "What, not gone to Florida yet?" "You are soon off for Florida I suppose?" "I wish I could get out of this climate for a few months," etc. I had determined to stay at the North just as long as possible, for, though Florida has a different climate it has not the many things that distinguish New York and render it the place above all others for one to make his home in. Last year at the close of January, I had a severe attack of bronchitis; this year I could find no personal reason for going; Mrs. Kellogg had a severe cold that seemed to furnish a sufficient excuse and so departure was planned for January 20.

The Southern Railway had put on a new train that left New York at noon and that was selected.

This New York and Florida Limited is a marvel of elegance, a combination of mahogany, tapestry, mirrors, fire linen, and having a dining car attached furnishing creature comforts, stylishly served with silver and cut glass. There was a compartment car with seven state rooms for those who desired exclusiveness and unusual space; these rooms could be thrown together; for invalids and families these state rooms are real blessings; besides there is a parlor or drawing room at each end of the car. There were two sleeping cars richly and tastefully furnished. There was an observation car also with easy chairs, books, papers, and maga-

The train left New York at noon, was in Washington at sunset, Columbia, S. C., at sunrise next morning, in Savannah before noon and at 3.20 in Jacksonville, completing the thousand miles in about 28 hours. The change in the climate was indeed remarkable. Bearing in mind that it is winter here and that all except the evergreen plants are having a resting period, still the sight of roses on the bushes, of colored children without shoes and stockings, and a general feeling in the air that ice and snow are nowhere near you and not likely to be, makes one realize that he has entered during the night an entirely different country.

Florida has a world-wide fame for its oranges; it had reached a production of five millions of boxes; the killing frosts of 1894, destroyed this source of income; the state produces other crops, such as corn worth 21 million dollars, cotton, 2 millions; hay, rice, peanuts 1, sugar 1, tobacco, potatoes 1, cabbage 1, tomatoes 1, pineapples 1, strawberries 1, mangoes, guavas, pecans, pears, etc. The depression that was produced is being overcome. The state has just the same value to-day for its charming winter climate as ever; its healthfulness may be judged when statistics place the mortality at ten per thousand which is about half what it is in New York city.

The crop of tomatoes I have just given as worth annually a half million of dollars, the markets here are full of them; the great producing point is Winter Haven, near Tampa; B. T. Wills netted \$950 from eight acres of tomatoes, another \$9,000; another \$10,000. All kinds of vegetables are to be seen, lettuce, celery, cabbages, potatoes, turnips; the rivers and lakes abound with fish. In fact one feels daily that he is in a tropical country.

Jacksonville is a city of 30,000 people, it lies on the St. Johns river; the United States government has spent one million on improving the navigation of the river, the city contributed \$300,000 more so that large steamers could reach it. It is lighted with electricity, has electrical roads; half its streets are paved with

As I am repeatedly asked to give my opinion as to the desirability of Florida as a permanent abiding place for those who need a milder climate, I shall endeavor to advise as accurately as possible. I believe in Florida; that it furnishes an opportunity for thousands of persons who cannot endure the cold weather that prevails in other parts of the country; that the means of a livelihood are within the grasp of all who understand the situation. A series of visits made for the past ten years warrants me in saying that there are great opportunities here; many have come and failed, failed because they did not adapt themselves to their surroundings. One of the newspapers puts the case thus: We have people come here who were failures somewhere else, the successful elsewhere will succeed here.

I cannot undertake to advise specifically; first visit Florida and look the ground over, do not move until this is done. There are drawbacks; the main one is that very many come here with no capital, the next, is a want of experience with tropical surroundings. To buy a piece of cheap land covered with a dense growth of bushes and trees, far from the railroad, with the expectation of raising a crop of oranges in three or four years, cannot but yield disappointment. Some of these failures are most pitiable.

As to the social surroundings, the schools, the churches, and those things that go to make up the delights of life it must be said that, except in the villages, these do not present the attractions they will in ten years more; Florida is still in the rough; it is essentially a new state. A. M. K.

Faith.

On stormy days the snow-clad hill, Whose lofty grandeur feasts my eyes, Is hidden 'neath a bank of cloud, And darkness all around it lies. I do not fear my mount is gone, I know it waits behind the cloud; I wait for sunshine to return And gleam upon its misty shroud.

The stars whose quiet calm I love, Night after night are dark to me; My eyes gaze on the pall above, But not one ray of light I sec. I know my deathless stars are there Above the dark, and shining on; I know they'll shine for me again Some night when all the clouds are gone.

The road I travel to my home, In fog is shrouded, many days; One step before is all I see, The vale is hidden in the haze. But still my face is homeward turned, In perfect trust I'll find it there; Its light a-gleam, its fire warm, And by their side my easy chair.

Why do I doubt when dark clouds hide The things in life I wish to see? The faith I give to things of earth Should be a lesson plain to me. Behind the clouds the sun must shine, Else how would we know cloud from sun? And in our lives a purpose lies, Some goal there is which must be won.

What though the mount of my desire Is hidden deep in cloudy gloom; My eyes should turn in perfect faith To where in pride it used to loom. And, when Ambition's star is hid, Why should I mourn and cease to climb? The star is there behind the dark, And clouds must break in God's own time.

If my life's path is wrapped in fog, Why should I falter and show fear? One step ahead I still can see, And Faith can see the end all clear. The road will lead me to my home, I need not see its winding way; Each step I take will lead me on To heights where dwells eternal day.

-Mary C. Bants, in San Francisco Call.

A New Text-Book Bill.

TOPEKA, KAN.-State Supt. Stryker has drafted a text book bill which is very favorably received by educators of the state and it is likely that it will be presented to the legislature and adopted. The bill provides that school boards, including boards of education in cities, shall purchase the necessary text-books, making contracts for terms of five years.

Each publisher making contracts shall file with the governor a bond in the sum of \$50,000 for the faithful performance of the conditions of such contracts.

No school board shall contract for books not approved by the state board of education.

A maximum price for school books is fixed as follows: Spelling book, 10 cents; first reader, 10 cents; second reader, 15 cents; third reader, 20 cents; fourth reader, 25 cents; fifth , 30 cents; arithmetic (intermediate), 25 cents; arithmetic (complete), 40 cents; geography (elementary), 30 cents; geography (complete), 75 cents; grammar (elementary) 20 cents; grammar (complete), 35 cents; physiology, 50 cents; history of the United States, 50 cents; copy-book, 5 cents.

When the state board of education approves of a certain line of books the governor shall issue a proclamation to that effect, and then it shall be the duty of school boards to adopt a series of books for five years.

If the state board is unable to procure books below or at the prices strted, it shall advertise for manuscripts of the books needed and select such as are satisfactory and have them published at the expense of the state, and then sell the books to the local boards at cost.

Publishers desiring to sell books in Kansas shall file proposals in the office of the state superintendent, and the board of education shall consider them and accept such as are satisfactory.

Each bidder shall make affidavit that he belongs to no trust or

Massachusetts State Agents Elected.

BOSTON, MASS.—The state board of education has reappointed its agents (state supervisors of instruction), with the exception of George A. Walton, of West Newton, who declined to be a candidate. Mr. Walton graduated at the Bridgewater normal school under Col. Tillinghast, its first principal. He was from 1848 to 1866 in charge of the Oliver grammar school in the city of Lewrence, was joint author with Mr. Dana P. Colburn of the "First Steps in Numbers," published in 1850; of "Walton's Arithmetical Tables," published in 1863; of a three-book series of "Standard Arithmetics," published in 1864, and later of the "Franklin Arithmetics," now extensively used throughout the country. BOSTON, MASS.—The state board of education has reappointed

It is understood that Mr. Walton's resignation was due to the action of last year's legisla ture in prohibiting any recuniary interest in text-books on the part of agents of the board. Finding it difficult to dispose of that interest without great pecuniary sacrifice Mr. Walton could not accept a reappointment. He has served as agent of the state board for twenty-five years.

It has been the policy of the Massachusetts state board of education to refrain from influencing school boards in the matter of text-books. The board has no authority whatever over the action of school committees in such matters.

These agents have been elected: John T. Prince, West Newton; Andrew W. Edson, Worcester; G. T. Fletcher, Northampton; John W. MacDonald, Stoneham; Henry T. Bailey, North Scituate; L. Walter Sargent, North Grafton.

Success of Co-Education at Tufts College.

Four years ago Tufts college began to admit women on equal terms with men. President Capen is well satisfied with the results produced by this change of policy of the college. He writes: "Speaking negatively, I am constrained to say that the admission of women has not had a tendency to reduce the number of men entering the several departments. On the contrary, there has been a constant and steady, and in some departments a very marked increase in the attendance of men. The presence of women, moreover, has not diminished the interest in the activities or sports which are supposed to belong peculiarly to men's colleges. There has been no friction arising from their presence in the class-room, and they have not increased materially the difficulties of administration. culties of administration.

"On the positive side it may be said that their work has been as well done as that of the men. The general testimony of the teachers is that they have raised the tone of the class-room, and quickened the serious efforts of student life. Their presence has quickened the serious efforts of student lite. Their presence has also brought an element into the social atmosphere of the college which is very agreeable and very wholesome. The medical school has been co-educational from the start. Women have shown excellent capacity for medical training. The teachers, moreover, assert that they have found no embarrassment from the presence of both seves in the lecture-rooms and laboratories," the presence of both sexes in the lecture-rooms and laboratories.

The Township System and Conveyance of Pupils.

Wherever the township system is adopted the question of how best to convey children to school is sure to come up. The SCHOOL JOURNAL has in previous numbers described the plans of transportation by wagon which are in operation in Massachusetts, the suburban districts of New York, city and elsewhere. Since then there have been many inquiries as to the best method of getting rural districts together and securing the adoption of a good system of transportation. An example, showing the experiences of a Western Reserve township, will suggest the desired

By the law known as the "Workman law," the district boards were abolished in Ohio some time ago and township boards instituted, in which every district is represented by one member. Stone after the adoption of this law Supt. F. E. Morrison, of the schools of Kingsville township, drew up a petition to the legislature asking for the passage of a bill to allow township boards to adopt a system for the conveyance of children to a central building. This bill was passed. The Kingsville board of education decided at bill was passed. The Kingsville board of education decided at once to admit each district which should petition for admission in the township system. Every member then circulated a petition among the patrons of the school in his district. This was four years ago. One school was admitted during the first year, the next year two more were admitted, and now five districts are

recentrallized at the high school building in Kingsville township.

Four wagons were purchased by those who received the contracts for conveying the pupils. These contracts were let by the board to the lowest bidders. These wagons are large and substantial. The top, sides, front, and back are covered with rubber stantial. The top, sides, from, and back are covered with rubber cloth. Seats are built along each side and are covered with cushions. A liberal supply of blankets is furnished. The driver is also protected from the cold. The only window is in the front of the rig. In mild weather the wagon can be transformed into of the rig. In an open vehicle.

has been a notable feature that the attendance from each of It has been a notable feature that the attendance from each of the districts has been better than in any previous year to the time when the new system was adopted. The stipulations of the contracts with the drivers provide that they shall arrive at the school not earlier than 8.15 o'clock, and not later than 8.45. They start from their respective districts at an appointed hour and stop at the homes of each pupil, and after ringing a bell or blowing a horn, they remain just long enough for the pupil to come from the house to the gate.

In three years past there have been but two cases where children have been left because of their not being ready.

These conveyances are also compelled to be on hand for the return trip not later than ten minutes after the close of school in

return trip not later than ten minutes after the close of school in the afternoon. The pupils carry their dinners. Each wagon is capable of seating twenty five. The total cost per day for each capable of seating twenty-five. The total cost per day for each wagon is from 95 cents to \$1.05.

Previous to the adoption of this new system there were seven

revious to the adoption of this new system there were seven teachers employed in the five districts. These teachers were hired by the term and there were constant changes. There was a small attendance in many of the districts, which together with the inefficiency of the instruction of the inexperienced teachers made the need of a change very apparent. At the present time there are only five teachers who instruct a larger number than before were instructed by seven teachers.

The people of Kingsville are highly pleased with the new system, and there is not a pupil to be found who would prefer to return to the district school.

It has been quite noticeable that there is less sickness among the children. The plan of carrying them from the door of their residences to the door of the school-house has saved them from the hard colds which are so prevalent along Lake Erie in the winter season.

Examination in Advanced English.

ALBANY, N. Y.—James Russell Parsons, Jr., director of the regents examination department has sent to the principals of the regents examination department has sent to the principals of the academies and high schools in the state a circular, embracing specimen answers from papers submitted to the regents as a result of the January examination in advanced English. There has been much criticism throughout the state that the examination was too severe, and in the circular issued Mr. Parsons, in

answer to those criticisms, says:

"In reply to requests of principals and teachers to indicate clearly the range and accuracy of answers expected in the January examination in advanced English, the examination paper is inclosed. University examiners report that the papers rated thus far have proved fairly satisfactory. Of twenty passed papers taken at random, the average length is between six and seven pages, including nearly three pages of essay matter.

"Teachers of advanced English are requested to return the question papers, indicating the questions which, in their judgment are too difficult."

ment, are too difficult."

The Slow Cure of Diphtheria.

WESTFIELD, N. J.—Health Inspector Harrison believes that no child should be readmitted to school after having had diph-

theria without a certificate that the disease had wholly disappeared. The health inspector says that he has made tests six weeks after the recovery of a diphtheria patient, and found diphtheria bacilli still present. This, he says tends to breed the disease among pupils.

Old Salem's New Normal.

SALEM, MASS.—The new state normal school was formally dedicated on January 26. The exercises were in charge of Dr. Capen president of Tufts college, who is chairman of the visiting board of the state board of education for this school. Professor John Bascom, of Williams college, delivered an address, and Miss Ellen M. Dodge, one of the old teachers of the school, gave a history of the school in Salem. The board of education, the governor, and the committee on education of the legislature and the city of Salem were all represented.

In her historical sketch Miss Dodge noted the fact that the infant school had as its sponsors ex-Governor George S. Boutwell, who became shortly afterward secretary of the state board of education, and Dr. Henry Wheatland.

The building is of light colored brick, and stands on high ground, making an imposing appearance. It has accommodations for several hundred people. This school has had but four principals—Richards, Alpheus Crosby, Daniel B. Hagar, and W. P. Beckwith. Mr. Beckwith took charge of the school recently, on the death of Dr. Hagar, who was principal for over a quarter of a century.

A Nine-Year Old Poet.

A little nine-year-old girl, Salome Beckwith, of New London, Conn., has taken to writing peetry. It is of the Browning order, her mamma says, not always quite clear. The following are some of the verses as sent to a New York friend and published in the Sunday *Times* Feb. 7:

THE MEADOWS.

I love the meadows only
Where flowers always grow,
Hurrah for merry summer!
When pretty rivers flow!

The meadows are my pleasure Where daisies like to stay. Three cheers for merry summer And all this happy day!

LULLABY

Baby sleeps so sweetly in her little cot, Mother sitting by her, contentment is her lot. Baby sleeps so sweetly, mother sitting by In her little cradle, she sings a lullaby.

THE SUN.

The sun is rising very high, The baby, she will wake by-and-by. Smiles will surround her pretty face, For she will see the bright sun's pace.

The darling, she's so very good, I love to watch her as I should, As smiles and kisses and of love She sees the sun so high above.

The Mary Lyon Centennial.

February 28 will be the centennial of Mary Lyon's birth. She was born in Buckland, Mass., and died in South Hadley, March 5, 1849. Her whole life was devoted to the education of girls and young women. She was the first to introduce into the schools of Buckland and vicinity the study of geography with maps. In her thirty-five years of teaching she came in contact with more than three thousand pupils. Mount Holyoke seminary was organized in 1837. Even then Miss Lyon had the college idea in mind, but she thought it more prudent to call the institution a seminary. The idea of a higher education of women under Christian influences seems to have originated with her, and schools planned after Mt. Holyoke seminary have sprung up all over this country, and also in other leads.

The Mary Lyon centennial will be observed during commence-

Through Car Service-New York to Nashville, Tenn.

Commencing on Sunday, January 24, 1897, the Pennsylvania and Southern inaugurate a through Pullman Sleeping Car Liae between New York and Nashville, Tenn., via Washington, Asheville, and Chattanooga. The new line passes through the scenic Western North Carolina, the "Land of the Sky," and gives the most excellent service between New York and Nashville. The through car will leave New York daily at 4.30 P. M. For further information, call on or address New York office, 271 Broadway.

ment week in June, by historic reminiscences, and the dedication of some of the buildings now in process of construction. The Congregational Club of Chicago will observe a "Mary Lyon Evening" February 22, and many ministers of different denominations intend to preach on her life and the influence of the institution she founded.

What is Your Aim?

"Under the head, "Which System of Education?" the Philadelphia Record prints a strong editorial article calling attention to some serious defects to be found in the training given in American secondary and higher schools, particularly as regards technical training. Incidentally the article gives some wholesome thought on the examination nuisance. In the old days, it says, when Greek, Latin, and mathematics, formed so large a part of the college curriculum the purpose was to discipline the mind rather than to crowd it with knowledge. It was supposed that if the student had learned to think and to reason he could, as occasion might arise, apply his powers to well-nigh any subject, and analyze and master it. That sort of education, it must be contessed, produced great numbers of very remarkable men in almost every department of life. Nevertheless, it is not as popular as formerly; the age is commercial, and technical training is more valued than classical.

England has spent large sums in providing technical schools, and they also abound in Germany. The English schools, however, have proved less successful than the German. Professor William Ramsay has written an article in which he points out why the English method has comparatively failed and the German method has succeeded. It is the examination system in the one country and the well-nigh repudiation of it in the other that

why the English method has comparatively failed and the German method has succeeded. It is the examination system in the one country and the well-nigh repudiation of it in the other that have caused such different results. He says:

"In Germany little importance is attached to examinations. The student, after spending a year and a half or two years in mastering the general aspects of his subject, proceeds to carry out some research.

During all this time he is not pestered with having to prepare for periodical examinations, requiring the rapid assimilation of a sufficient number of facts to enable him to pass. Even at the end of his career the examination is considered of secondary importance.

The result of this freedom from mental worry is that the student is able to imbibe that spirit of love of knowledge for its own sake, and that enthusiasm for its advancement which lie at the base of all true progress in science. From among such students the German manufacturers are drawn."

"In England, on the contrary, we have no such incentive to a university career. The aim of most of our students is a degree, and the degree is awarded on the results of frequent examinations." The degree is the object, and not the technical knowledge and skill which fit the student for immediate practical employment in the sciences and the arts. And the frequent examinations in the English system are a bar and hindrance to the acquisition of that assimilated knowledge which becomes a part of one's mental being, and which is so readily and practically applied. Germany's admitted superiority in technical teaching is having important results. It is advancing her industrial prosperity, and is even threatening the commercial supremacy of Great Britain. We should take a leaf out of Germany's book. Our system of industrial education is worse than that of the English, and our technical schools bear no comparison with those of Germany. Let us change all this!

William E. Peck, headmaster of Pomfret school, died on Sunday last at Promfret, Conn., and was buried on February 11, at Southboro, Mass. Mr. Peck was a graduate of Harvard. He taught school for a while in Boston, and when St. Mark's school, Southboro, Mass., was opened as a private academy to prepare boys for Harvard, he was put in charge, and was principal for many years. Three years ago he started a school of his own at Pomfret, which has been very properous.

Supt. F. S. Porter, of Seneca Falls, N. Y., died on Tuesday last, aged forty-eight years. He was a graduate of Syracuse university, and studied law. He abandoned the practice of law for teaching, taught school at Canton, and was principal of the Lincoln school, at Hornellsville, before going to Seneca Falls.

Jacob Smith Denman died last week at his home in Brooklyn, aged 84 years. He was a school teacher in early life, and was the first superintendent of public instruction in Tompkins county. He was long engaged in the publishing business. He leaves a a widow and two sons.

RICHMOND, VA.—The Rev. H. H. Harris, D.D., LL.D., A.M., who died at Lynchburg, on February 4, was widely known in the South. He was graduated with high honors from the University of Virginia, and was professor of Greek in that institution for nearly thirty years. He resigned his position as chairman of the faculty last year to become one of the faculty of the Southern Baptist Theological Seminary in Louisville, Ky.

Greater New York.

Connect a Kindergarten With Every Primary School.

New York city now supports nineteen public kindergartens. Five of them were opened since the appointment of Dr. Jenny B. Merrill as supervisor of kindergartens. The friends of the movement ought to organize a stirring campaign to spread these institutions over the whole city. The agitation must be kept up until a kindergarten is connected with every primary school. Miss Merrill is energetically working toward this end, and her success thus far promises well for the future. She ought to be strongly supported by all the educational clubs organized to increase the efficiency of the local system of public education. Those who still doubt the value of the work ought to visit one Those who still doubt the value of the work ought to visit one of the three kindergartens recently opened in the Italian district. The happiness of the little ones will move the heart of every humanitarian. The movement games are particularly enjoyed. The children understand but very little English and gestures and motions afford them a happy means of expression. Motor activity is the real source of childly joy and no institution brings it into play as much as the kindergarten.

New York Needs More Teachers.

Supt. Jasper says that there is an urgent demand for teachers in New York city. There are at present eighty vacancies, and the eligible list is exhausted.

"The enlargement of the city schools," Mr. Jasper told a re-porter, "the increase in their number, and retirement of teachers, owing to old age, sickness, and other causes, make it necessary to appoint about 600 per year. The Normal college, which makes a specialty of preparing young women for teaching, only graduates about 350 a year, so that if we got every graduate from that institution we would still have to look around for 250 more. As

institution we would still have to look around for 250 more. As a matter of fact, the normal school does not supply one half the number required. Some come from other schools and others come from the country or neighboring cities.

"There always has been a good opportunity for efficient teachers to succeed in New York, but at this time, owing to the high standard of qualifications, the supply is not anywhere near the demand. I do not mean that the exactions are too great or the examinations too rigid, but still it takes work to reach the standard. It requires hard application, and unless a young man or woman has high assirations, and wishes to engage in teaching as

ard. It requires hard application, and unless a young man or woman has high aspirations, and wishes to engage in teaching as a life vocation, there is not much use in taking up the profession. There must be a liking for it and an aptitude. In other words, there must be special qualifications, and unless people are thoroughly in earnest they find it easier to go into something else. There is no drifting about this business.

"Still, I contend that New York offers a splendid opportunity

"Still, I contend that New York offers a splendid opportunity for teachers—for young men and women who have the education to enable them to pass the examination and the adaptability to enable them to rise in the profession after they get started.

"All teachers begin at \$408 per year. At the end of one year they are promoted. The lowest then receive \$504, and from that to \$530. The primary schools pay 585, the girls' grammar \$630. There is nothing to prevent them working along up in five or six years to much better positions. Women assistants reach a salary of \$1.116 and men \$2.016.

Mr. Jasper explained that there are now 257 substitute teachers.

Mr. Jasper explained that there are now 357 substitute teachers, or applicants for appointment to the eligible list, and by the employment of these men and women the classes are not allowed These candidates are required to teach for sixty days
If their services are reported as satisfactory for fortyon trial. on trail. It their services are reported as satisfactory for fortyfive days of the sixty they may enter the eligible list, after which
they are reasonably sure of a regular position. The system of
examination and appointment, he said, is such that "politics"
and "influence" have little, if anything, to do with a teacher's
success, either in getting started or in securing promotion. A
total stranger in the city, bearing recommendations as to character, can secure employment as readily as a native.

A New Regent.

Chester S. Lord, managing editor of the Sun, has been elected a regent of the University of the State of New York, succeeding a regent of the University of the State of New York, succeeding the late William L. Bestwick. Mr. Lord is a graduate of Hamilton college. His first newspaper work was done for the Utica Iterald. He then took an editorial position on the Oswego Advertiser, and then joined the staff of the New York Sun. Since 1880 he has been managing editor of the latter paper, a position which has given him a wide understanding of public affairs, and an extensive acquaintance with public men. He is a member of a number of prominent clubs, among which are the University, the Lotos, and the Union League. His election by the New York legislature as regent of the State University is a deserved recognition of his ability and scholarship.

\$800 the Lowest Permanent Salary for Teachers.

The special committee of the West Side Republican Club of New York city, which was appointed some time ago to formulate the views of the club on the education chapter of the proposed Greater New York charter, has limited itself to the consideration of the kindergartens and the changes in the schedule of teachers' salaries. Mr. Robinson, the chairman, speaking of the progress of the work, said: "The majority of the committee have decided to propose the incorporation of the kindergartens with the public The charter makes this permissible, but not manschool system. datory. Personally, I think this is best, but the committee requested that it be made mandatory."

In relation to the salaries the club has resolved that for teachers to be able to exert a refined influence over the children their salaries must be large enough to admit of a refined standard of living. They should be higher than those received by the work-

living. They should be higher than those received by the workers in factories and shops.

"We therefore suggest," concluded the resolution, "that \$500 be the lowest salary paid to a teacher during her first year. This should be increased \$100 every year until \$800 is reached, which would be the minimum permanent salary

Mr. Jasper Recommends no Books.

Supt. Jasper says that he has been much annoyed by circulars sent to New York city principals in which his name and that of assistant superintendents have been used as recommending certain books on the supply list. He wants it distinctly understood that he believes every book on the supply list to be valuable, but that since he has been superintendent he has never, directly or indirectly, recommended or indorsed any particular book.

The World's Great Cities.

Grammar school and high school pupils who have been told of the making of the Greater New York will be interested in the following report of a lecture by John Lloyd Thomas before the New York City League for Political Education:

"The 'greater city' is not confined to the United States. Great Britain and the Continent have their greater municipalities, London, Glasgow, Edinburgh, and Liverpool have all very greatly increased their areas within recent years. Paris, Berlin, and Vienna have also found it necessary to expand beyond their ancient limits. In the French and Austrian capitals the old fortifications have been torn down and transformed into boulevards, and the city has gone beyond the forter and into boulevards. and the city has gone beyond the forts and into the suburbs and

"Berlin's expansion is recent. It was made necessary by the of imperialism. The people had so taxed the limits of the old city that sociologists were beginning to study it to note the effects of the overcrowding and packing of human beings into a circumscribed area. But the bounds were broken, and Berlin became a 'greater Berlin,' and grew out toward the green fields and air and light.

"Paris has a population of 2,500,000, an acreage of 19,024, and the density of population is 128 to the acre. Berlin now has a population of 1,695,000, an acreage of 15,562, and a density of 109. Vienna has 1,526,000 population, an acreage of 44,400, and a density of only 34.3 to the acre. In spite of these figures, the lecturer said that Paris suffers less from overcrowding than any of the great cities. This is due to the fact that the population is very evenly distributed. The average density of American cities under twenty persons to the acre. In England it is about

"In New York city the average density is seventy-two to the acre. Below the Harlem river, however, it is 143 to the acre, while on the east side it is 448, and in the often cited 'Sanitary District A' of the Eleventh Ward the density is 986, or far greater than that of any city or any portion of any other city on the globe. In the Greater New York conditions will be, apparently, much better. The density will be only 17.2 to the acre; but many acres of the new city will be occupied by water, and the overcrowded sections of the present city will not be immediately effected. ately affected.

"The plan of New York prepared by the commission in the early part of the century, laid out only a few avenues running north and south. That commission plotted the whole of the Island of Manhattan into streets, and apologized for doing so by saying that it found that the land lay in a naturally defined body, and the work was continued up to the Harlem. The report added that it was not probable that all of this territory would be used for many generations!

"The average mortality of New York is 21.50 in the thousand. In the rear tenements the death rate is as high as 61.97. The mortality among infants for the entire city is 76.64; while in the rear tenements it is 204.54.

"In this connection the lecturer cited the example of London

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and Glasgow in dealing with similar overcrowded quarters. Bethnal Green, in London, has been expropriated, and that terrible 'slum' has been transformed into a beautiful and wholesome residence quarter and park.'

Age Limit Must Stay.

The Brooklyn board of education is opposed to the senate bill amending the act providing for the retirement of teachers. The amendment provides that there shall be no age limit. The local members of the senate and assembly will be urged to use all hon-able means to prevent the passage of the objectionable bill.

Salaries Increased.

The salaries of three well-known Brooklyn teachers have been raised this month. Dr. Walter B. Gunnison, principal of Erasmus Hall high school, will hereafter receive \$4,000 a year, instead of \$3,500. The salary of Mr. W. S. Goodnough, supervisor of drawing, has been increased from \$3,000 to \$3,400, and that of Prin. Charles D. Larkins, of the manual training high school, from \$3,000 to \$4,000.

Twenty-five Type-writers to be Bought.

The library committee of the Brooklyn board of education has been authorized to buy twenty-five type-writers, at a cost not to exceed \$75 each, for the boys' high school.

American Water Color Society

YORK CITY .-- A charming exhibition of water colors held under the auspices of the American Water Color Society may be seen during the month of February at the National Academy of Design, Fourth avenue and 23d street, New York Academy of Design, Fourth avenue and 23d street, New York city, While there are no strikingly large pictures this year there are few if any pictures that are not pleasing and worth seeing. A prize of \$300 for the most worthy picture exhibited goes to Irving R. Wiles, who shows a young woman in evening dress reclining on a sofa. A large green plush cushion behind her gives the title to the picture. Henry P. Smith is in evidence with several Venetian, Dutch, and American scenes. Henry Farrar shows gray October woods, Mr. Drake a lonely and quiet "Edge of the Pond." The Morans have this year a variety of dainty figures, nearly all in colonial dress, quaint and pretty. J. G. Brown, the well-known figure painter has a newsboy in a new and shall yightes, learly an in command these, quantity and pretty. J. G. Brown, the well-known figure painter has a newsboy in a new attitude. Mr. Rehn and Mr. Bicknell give sea views. Mr. Smillie the "Valley of San Remo," etc. Other well-known artists are represented in the five hundred pictures shown. The decorations by Walter Satterlee are a feature in themselves.

Municipal Art in England

The proposal of the Salford Corporation to cut off the legs of the portraits in the municipal collection, in order to economize the portraits in the municipal collection, in order to economize space, has naturally excited much interest in artistic circles. I am overwhelmed with correspondence on the subject—mostly from indignant artists. One of this class asks whether there are no portraits of mayors and councillors in the collection which could be reduced to half-size by trimming off their robes and other insignia of Bumbledom. Another suggests that, to complete the Salford collection, a portrait group should be added, representing the arts committee without heads—in which condition he is confident no one could fail to recognize them. Another correspondent advises the corporation to get over the other correspondent advises the corporation to get over the difficulty by cutting up all their pictures and exhibiting them from time to time in sections. The public could then go and look at the head of a famous character one day, his body the next, and his legs on a third. Vast possibilities are thus opened up for provincial art authorities, but the prospect is more novel than attractive. attractive,-London Truth.

National Congress of Mothers.

Active preparations are being made for this meeting. A special feature of the congress will be the sectional conferences, which will be carried on in rooms adjoining the banquet ball of the Arlington hotel, where the main congress is held. An exhibition of literature of special value to mothers will be given in one room where Mrs. Harriet McLellan, chairman of the committee on literature, will give advice on books and helps. Other rooms will be

given up to the kindergarten, kitchen garden, etc.

Mrs. Cleveland will give a reception at the White House to the

delegates, February 17.

State Supt. Schaeffer Commended for Reappointment.

LANCASTER, PA .- The Directors' Association of Lancaster County has passed a resolution urging upon Governor Hastings the importance of continuing the present wise and progressive administration of the department of public instruction by reappointing Dr. Nathan C. Schaeffer, who has so administered his office as to commend him to the soproval of the friends of senoffice as to commend him to the approval of the friends of general education throughout the commonwealth of Pennsyl-

Buffalo's Energetic Assistant Superintendent of Schools.

The New York Tribune recently published a very good por-trait and brief biographical sketch of Dr. Ida C. Bender, Buffalo's trait and brief biographical sketch of Dr. Ida C. Bender, Bullato B progressive assistant supervisor of schools, and president of the Women Teachers' Association. Most of the readers of The SCHOOL JOURNAL will remember the description given of the beautiful home of the Women Teachers' Association and many of them, no doubt, still think with pleasure of the hospitality extended to the educators who attended the N. E. A. last summer. The Tribune writes:

"1 Dr. Ida C. Bender is a woman remarkable for the early accomplishment of a well-defined and unusual purpose. Her father was Philip Henry Bender, member of the legislature when the bill was passed to establish a normal school at Buffalo. His daughter Ida entered it as a student, becoming later assistant teacher of Latin and German, and afterward principal of the school of practice. When, with what she had considered a knowledge of physiology, she failed to meet her own standard of excellence, she decided to pursue a thorough course in medicine. to be able to impart knowledge on broader lines. She is now entitled, having taken a full course at the Medical college connected with the University of Buffalo, to rank as a regular physician. Her heart, however, is entirely in educational work.

to rank as a regular physician. Her heart, nowever, is entirely in educational work,

"Miss Bender has supervision of all the children in the Buffalo public schools during their first four years of study. The primary department teachers number 600. Some of her best work, she says, is in the Chapter House, where the teachers meet for what is called their "Round Table Exercises." Here are reception, assembly, and gymnasium rooms. The drawing-room is reserved for special hours, when whist is taught and played, or practical lessons given in the kindergarten system. Dancing lessons are also on the program for those who desire them.

"The officers of the association, of which Dr. Bender is president, are chosen from the twelve public schools. The organization has a hie insurance and total disability system. Membership fees are \$2, and annual dues \$1. Upon death of a member, or when total disability claims are presented, there is an individual assessment of \$1. The president of such an association has to have business capacity. Dr. Bender is connected with many prominent social and phi anthropic societies."

Child-Study Round Table at Indianapolis.

Professor M. V. O'Shea, of Buffalo, N. Y., will conduct a round table on Child Study at the Indianapolis meeting of the Department of Superintendence, on February 16. His program will be as follows

Subject: The contributions of child study to practical teaching. (The primary aim in this program is to secure brief, definite statements from authorities of the practical value of child study. No tormal papers will be read. Leaders in discussion will not exceed twelve minutes, those who follow will not exceed five.)

What has inductive, statistical, or scientific child-study accomplished thus far that would suggest modifications in the present curricula or methods of teaching in our schools?

The development of voluntary motor-ability, Professor
 L. Bryan, University of Indiana.
 Fatigue and defects, Supt. H. E. Kratz, Sioux City,

3. Children's interests, Prof. G. W. A. Luckey, University of Nebraska.

of Nebraska.

4. Writing and Drawing, Prof. Herman T. Lukens, Bryn Mawr college.

5. The relation of motor-activity to intellectual development, Dean Edward R. Shaw, school of pedagogy, New York.

6. Adolescence, President A. H. Yoder, Vincennes universide.

II. How may the results of child study be best embodied in the curricula and methods of teaching in our schools as rapidly as they become reasonably well established?

I. In the elementary school. Mrs. Ella F. Young, assistant supervisor of schools, Chicago Professor E. E. Brown, University of California. James L. Hughes, inspector of schools,

Discussion: Supt. Samuel T. Dutton, Brookline, Mass. A. W. Edson, agent Massachusetts state board of education. Supt. George Griffith, Utica, N. Y. Supt. Clinton S. Marsh, North Tonawanda, N. Y. Supt. F. Treudley, Youngstown, Ohio.

2. In the high school: Dean C. H. Thurber, Morgan

Park academy.

III. How may teachers in service study their children in the

class room with greatest advantage and profit?

1. The "Still Hunt," Miss Sarah C. Brooks, assistant supervisor of schools, St. Paul.

2 Special studies, as upon children's reading, etc., Prof.

Special studies, as upon children's reading, etc., Prof. L. H. Galbreath, Illinois state normal university.
 Use of outlines upon Attention, Memory, etc., Prof. E. A. Kirkpatrick, state normal school, Winona, Minn.
 Physical measurements and tests, Prof. W. O. Krohn, University of Illinois.
 With the co-operation of parents, Prof. C. C. Van Liew, Illinois state normal university.

IV. Should teachers in preparation have instruction in theoretical and practical child study? Principal Francis W. Parker, Chicago rormal school.

Discussion: Miss Mary E. Laing, Oswego normal school.

Ceachers' Meetings.

Reading by the "Phonic" Method.

The Cook County Teachers' Association meets once a month The Cook County Teachers' Association meets once a month in Chicago. The morning session is usually taken up by a lecture, and the afternoon by sectional meetings. The morning sessions this year are taken up by a series of University Extension lectures on "Fiction," by Prof. McClintock.

The session of the country school section, held in the afternoon, is always presided over by County Superintendent Orville T. Bright, assisted by Assistant Superintendents Farr and Downey. Reading has been the subject for discussion during the last four months. This month, "phonics" was particularly treated. The substance of the discussion was about as follows:

The English language is made up of words, which consist of

The English language is made up of words, which consist of letters, and these letters have certain sounds. The combination of these sounds make up the spoken word. The child can discover the new word only when he can produce the sounds represented by the symbols,

After one term at school, a child should be able to pronounce the ordinary phonic word. He who cannot do this, cannot use the powers God has put into him.

Teachers in country schools should accomplish more than graded school teachers because their classes are smaller and the individual can be reached better.

Making thought the central thing in teaching reading is very good in its place, but what about such words as "of," "like," and "so"? What thought is there in them? Such words furnish excellent material for work in phonics.

(Mr. Bright is himself teaching a beginner to read and keeps his country school teachers informed of his progress. Teachers should not tell too many things, but let teachers discover them. For example, the word "like." This word need not be told nor yet is it necessary to put the macron over the "i." Tell the child it is long i, and let him apply what he has learned of long i. The marked word is not natural and besides it tells him.

He marked, he must use his own power of discrimination.

How soon should print be introduced? Mr. Bright thinks it should be introduced very early in the course, say after twenty-five words have been learned in script.

Spelling and writing should not be required to keep pace with

Spelling and writing should not be required to keep pace with reading.

Mr. Bright has in his office a large supply of about thirty different books, suitable for children's reading. These he loans in quantities sufficient for class use to country school teachers for use as supplementary reading. Among these he considers "Fables and Rhymes" one of the best.

How should such words as "about" be taught? It is presumed that the word out is already known, also the sounds of a and b. Put on the blackboard—out, have it pronounced, then prefix b, and then a, having it pronounced each time.

All the monosyllables containing a certain combination sound, such as out, at, or, an, may be found by prefixing each letter

such as out, at, or, an, may be found by prefixing each letter in the alphabet in turn and rejecting those which do not make

words.

Mr. Bright aims to make the discussions as the country school section so plain, simple, and related to every-day work that the average country school teacher cannot fail to get something of direct, practical use to him.

W. B. SCHAEFER.

W. B. SCHAEFER. Ontarioville, Ill.

Meetings of Educational Associations.

February 16, 17, 18.—Department of Superintendence of N.E.A. at Indianapolis, Ind. Supt. C. B. Gilbert, Newark, N. J., president. February 17, 18, 19.—National Congress of Mothers at Washington, D. C. Secretary, Miss Mary Louisa Butler, Washington, D. C. February 26, 27.—Seventh semi-annual meeting of the New York Arcachers' Association at Brocklyn. President, Walter S. Goodnough. July 6-9, 1897.—National Educational Association meets at Milwaukee, Wis.

July 9, 12.—American Institute of Instruction at Montreal.

Tour to Old Point Comfort, Richmond, and Washington.

A delightful personally-conducted tour, allowing two days at Old Point Comfort, one at Richmond, and two at Washington, will leave New York and Philadelphia February 20 via the Pennsylvania Railroad. This tour covers a peculiarly interesting territory, the quiet beauty of Old Point, the historic monuments of Richmond, and the ever-interesting departments and institutions of the National Capital.

and institutions of the National Capital.

Tickets, including transportation, meals en route in both directions, transfers of passengers and baggage, hotel accommodations at Old Point Comfort, Richmond, and Washington, and carriage ride about Richmond—in fact, every necessary expense for a period of six days—will be sold at rate of \$35.00 from New York, Brooklyn, and Newark, \$34.00 from Trenton, \$33.00 from Philadelphia, and proportionate rates from other stations.

from Yenton, \$33,00 from Tanascape, other stations.

Tickets will also be sold to Old Point Comfort and return direct by regular trains within six days, including transportation, luncheon on going trip, and one and three-fourths days' board at Old Point, at rate of 16.00 from New York, Brooklyn, and Newark, \$15.00 from Trenton, \$14.00 from Philadelphia, and proportionate rates from other stations.

Nebraska State Teachers' Association.

(Continued from page 182 in THE SCHOOL JOURNAL for Feb. 6.)

HISTORY TEACHING.

A. H. Bigelow, of Falls City, urged that history should be given a large portion in the early courses of study. In the early grades it must take the form of story telling. Sciences, myths, and history are thus begun. The wise teacher will draw from classic sources stories that are well fitted to the appreciation of a child. In the third and fourth grades story telling should be aided by readings. In the fifth grade the formal study of history begins with some of the many books adapted to these grades. In the eighth grade the student may study the revolution. The high school course should be consecutive. Throughout the study of history from first to last a unity should be preserved. The history of the United States should never be studied as an isolated subject. Civil government should be made a part of the historical study. cal study.

LABORATORY FACILITIES.

J. W. Crabtree spoke of the laboratory facilities which he considered absolutely essential to good science teaching, and thought about \$200 would be needed for the work in the three principal Five hours of laboratory work for every hour of recitation were recommended.

In 'the discussion H. G. Barber, of Nebraska City, said that much of the necessary apparatus could be made of homely materials. To illustrate, he showed an alcohol lamp made from a wide-mouthed bottle, a cork, and a bit of tubing. A lamp-stand was made from a tin can with slits up its sides. He gave a list of apparatus that could be thus cheaply made, and said that \$22 would reach a respectable outfit. would make a respectable outfit.

Mr. Condra, of the Lincoln high school, thought that in laboratory work too many experiments were given and that principles were not sufficiently clinched. He thought that recitation and laboratory work should be about equally divided.

Common minerals, instead of expensive, chemicals may be used in many cases.

Mr. Josyln, of Wymore, explained how his pupils collected all varieties of the lower plants. They have five microscopes and the thirty-five pupils are divided into five divisions.

Mr. Beattie, of Leadville, Colo., said that his school was six and one-half miles from pond scum, and there were no trees near but pine and quaking ash. Nevertheless, he had managed to get his material from outside. In his work he began with the single cell and worked up to more complex forms.

Dr. Ward, of Nebraska university, was asked whether it is better to begin with the simple cell forms or the higher forms. He said it depended somewhat upon the teacher, but in general it is best to start with the cell, and then build on up to the more complex animals and plants.

NORMAL TRAINING IN HIGH SCHOOLS.

W. R. Hart, of Lincoln, thought that high school pupils who intend to teach should be trained in actual practice in methods in

Miss Clark, of Fremont, pointed out some limitations that make such a training not all that is necessary for teachers of country schools. The work in the high schools is different from what is

Mr. Reed, of Crete, also saw practical objections to making all or any considerable number of the high schools, training schools. Most of them are overworked as it is.

ENGLISH IN THE GRAMMAR GRADES.

Miss Carrie I. Haggard, of York, said English should be taught in connection with other branches. That used in mathematics should be brief and concise. Geography affords an excellent opportunity to teach language. The pumping process kills children's powers of expression; they should be allowed to talk in their own way. Many songs sung in school have incorrect English. Attention should be called to this if such songs are allowed at all.

RELATION OF KINDERGARTNERS AND PRIMARY TEACHERS.

"Saould the Public School Kindergarten Teacher Understand Primary Work, Should the Primary Teacher Understand Kindergarten Work?" was treated by Miss Pearl S. Kelley, of Peru, who said that in a large number of graded schools the primary and kindergarten work is combined in the same room, and therefore the kindergarten teacher must necessarily understand primary work. While it is desirable that primary teachers understand kindergarten methods she thought that they can get along without them better than the kindergarten can without training in primary work.

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Miss Clendenin, of Grand Island, thought that a further investi-gation of child study better training than the study of mere meth-ods.

Mrs. H. H. Heller, of Omaha, did not agree with Miss Kelley in regard to the primary teacher not absolutely needing kindergarten work. She thought that primary teachers needed kindergarten training and could not be successful without it.

CHILD STUDY.

Mrs. H. H. Heiler read a paper on "Child Study and Its Effect upon the Sympathies and Justness of Teachers." Miss Minta B. Cooley, of Nebraska City, said that the sympathy of teachers often helps children to overcome a great many obstacles in the path of education, where hard compulsion would only augmen: them. All the children must be looked to in an individual way, for "it is the will of your Father that not one of these little ones should perish." To save them all they must be understood and sympathized with.

and sympathized with.

"Child Study, Its Relation to the Home and the School," was the subject of a lecture by Dr. W. O. Krohn, of the University of Illinois. He said he was not concerned in methods or aims, but was concerned in the child, the raw material that has so long been lost sight of. Many do not know what the child is as a child. The child does not grow by mass or by bulk, but by periods and epochs. The whole body does not grow at one time. Growth always centers in one set of organs at a time. One set of muscles develops at a time. Round, sweeping movements are first natural to the child. A child will naturally make large letters on a blackboard, yet the methods of teaching penmanship letters on a blackboard, yet the methods of teaching penmanship are just the reverse.

The child grows by periods and epochs, not only physically but mentally. Sense perception comes first and develops into reasoning. Memory unfolds next and grows. The power of imagination follows, coupled with imitation. The proper time to exercise a faculty is when it grows most rapidly.

Children are not little men and women. Children differ intellectually and morally from men and women. Thus it is plain that children's lies are not evidence of immorality. Lies may be a piece of incipient research. The lie may be tried to see if it works. If it does not work the child may give it up.

Comparison, imagination, and curiosity are faculties which soon ssert themselves, and if curiosity is in any way restrained, the child cannot become a good reasoner.

Courses of study are framed by grown men, not to fit the child, but for what the child ought to be. The child is thus thrust into a cast iron mold.

Good results have been obtained by placing a certain study, not in every year of the course, but in that year when the child is ready to study that particular branch. Seven years or four years are not required to teach a child the elements of arithmetic. Two years and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is between seven and a half is sufficient when the child is suffic and a half and eleven years. The mental waste is enormous under most courses of study.

The speaker told of six young men teachers, each of whom took twenty-five pupils through a seven-year course in four years

by merely taking up the regularly prescribed studies in the order of the pupils' development.

Referring to pupils who have defective sight or hearing, Dr. Krohn said that defective sight was not so serious in itself, but that it was generally accompanied or followed by serious nervous complaints. The practice of requiring children to copy from a blackboard at a long distance was given as one cause of defective sight and many mistakes which hinder advancement.

"The Teacher is a Factor in Character Building," was treated by Miss Fidelia Schaffnit, who said that ideals should be always before the child.

Mr. E. H. Morgan, of Nebraska City, read an article on "Science in the Grammar Grades." He said he would have his fourth grade pupils learn of mildews, rusts, smuts, toadstools, and other fungi. They notice the way things grow, whether the puff ball fungi. They notice the way things grow, whether the puff ball has a stem, and if so, how much of one. Leaves are weighed

when freshly picked and again when dry.

The study of zoology is begun with the material at hand. The goose is examined and the pupils are questioned why its feathers are so close, why its bill is so shaped. Geology may be studied if there is a will. The only trouble that arises is that it is a physical impossibility for any one to answer all the questions that will be selected. will be asked.

will be asked.

W. H. Skinner, of Nebraska City, read a paper on "What Habits and Incentives to Literary Interpretation Can be Taught in the Primary Grades? How?" He said that children should be taught to "understand the undercurrent of meaning in reading." They should be taught to think of the emotional as well as the intellectual meaning of words. When they read "the green, mossy banks" they should be encouraged in calling up all the associations that these words bring to our minds.

He said also that children should be taught to appreciate types of figures of speech. They do this naturally if they are allowed to do so, but in too many instances teachers try to crush the tendency. This emotional meaning of words and phrases helps to form a good moral character.

dency. This emotional mean form a good moral character.

THE SUPERINTENDENT AS TEACHER,

THE SUPERINTENDENT AS TEACHER.

The superintendents discussed "The City Superintendent as a High School Teacher." Robert Barr, of Grand Island, believed that the superintendent's time is needed for supervision, and he favored little teaching.

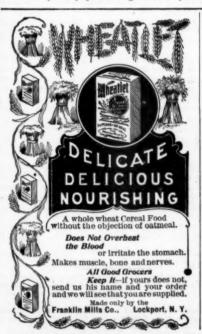
J. G. McHugh, of Plattsmouth, said that the amount of teaching done by the superintendent depended on the number and experience of his teachers. If there were but twelve or fourteen teachers, at least half the time might be given to teaching.

Mr. Conner, of North Bend, thought that the superintendent's chief duty was to encourage the work below the high school.

Mr. Reed, of Blue Springs, said he gained time by giving written lessons, and leaving the pupils in charge of an assistant teacher.

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Quasind, the "very strong man Quasind," Pecksuot of the mighty muscles, and the brave Wetuwamet of Longfellow reappear, they only add to the delights of the book. It is necessary to understand the Indian to understand the early history of our country. Here we find him described in a style suited to young minds. The book will make a good historical reader for the schools. (The Morse Co., 96 Fifth avenue, N. Y. 75 cents.)

The first volume of a history upon which Edward Eggleston has been at work for many years, which has just appeared, brings no feeling of disappointment, either as to its thoroughness or its scholarship. It is entitled The Beginners of a Nation, and treats of the source and rise of the earliest English settlements in America with special reference to the life and character of the people. In his preface he says: "I have sought to trace from their source the various and often complex movements that resulted in the early English settlements in America, and in the evolution of a great nation with English speech and traditions. It has been my aim to make these pages reflect the character of the age in which the English colonies were begun, and the traits of the colonists, and to bring into relief the social, political, intellectual, and religious forces that promoted emigration. This does not pretend to be the usual account of all the events attending early colonization; it is rather a history in which the succession of cause and effect is the main topic—a history of the dynamics of colony planting in the first half of the sweateenth century."

The author has not considered the history from the point of view of the colonies themselves, as has been done by most historians, but from that of England, and thus many things are explained that would otherwise be unintelligible. The colonization of Virginia. Maryland, and Massachusetts is described in this volume, with a view to the broad movement of events and not to

details, and in a style that for literary attractiveness is possessed by few historians. Mr. Eggleston has gone to original sources for his material which enables him to speak with authority. His elucidations are given in smaller type at the ends of the chapters, This book will hold its place as an authority on the period it covers. (D. Appleton & Co., New York.)

The speeches that once stirred the public mind and heart are always interesting reading. Mr. Leopold Wagner has gathered the speeches of certain Englishmen into a volume under the title Modern Political Orations. Among these are speeches by Brougham, Macaulay, Fox, O'Connell, Bulwer-Lytton, Bright, Gladstone, and others. The speeches are all political ones, and concern some great occasion or crisis. It is a good thing to have speeches like these close at hand and in a convenient shape. This the author has accomplished very happily. (Henry Holt & Co.)

A large amount of legal knowledge must now be in the possession of every well-informed man; especially is this true of rules that apply to commerce. A very compact treatise of about 350 pages under the title The Elements of Commercial Law, by Albert S. Bolles, lecturer on that subject at the Drexel institute, covers the ground in a very clear manner. It is systematically planned and would serve as a text-book admirably; it is a book the merchant or his clerk could read with profit. It would be a capital thing if the university extension people could arrange to have books of this kind read by the latter class. A club of young men at the rooms of the Y. M. C. A. would be interested to have this book read to them. (Henry Holt & Co. \$1.00.)

A book of value to superintendents of schools is found in A Study in School Supervision prepared by Henry C. Fellow, assistant state superintendent in Kansas. His object was to give in concise form a comprehensive comparison of the modes of supervision, requirements for certificates and the provisions for the maintenance of the school systems in the various states. Each state is taken up in alphabetical order and general facts given; then the mode of supervision in the cities following a similar plan; then the mode of supporting the schools. (Crane & Co., Topeka, Kan.)

Interest in political economy is shown by the republication of the First Six Chapters of the Principles of Political Economy and Taxation of David Ricardo. It is only necessary to add that this author is regarded as an authority that cannot be disputed. He discusses, rent, wages, profits, taxes, and the like. The entire book was first published in 1817. (The Macmillan Company.)

The books of the Atheneum Press Series have many points to recommend them to students of our literature. The general editors are G. L. Kittredge and C. T. Winchester and the special editors of the different volumes are men of ability and scholarship, some of whom have made their mark in literature themselves. One of these contains selections from the works of Richard Steele. This differs from other similar volumes in that it gives extracts from his plays, poems, letters, and political tracts, as well as from his periodical writings, and in that it arranges the selections in the order of time. The introduction, by Prof. George Rice Carpenter, of Columbia university, gives an excellent picture of Steele and his times; and a discriminating critique of his works. (Ginn & Co., Boston.)

The great interest put in the career of Napoleon has induced Prof. Alcée Fortier, of Tulane university, to make a small book of extracts, giving his history in brief, from some of the best French authors, for the benefit of those who are learning the French language. Napoleon is allowed to speak for himself (Mémorial de Sainte-Hélène), then selections are given from writers favorable to him, such as Duruy, Victor Hugo, and Thiers, and from writers rather hostile to him, such as Henri Martin, Chateaubriand, Edgar Quinet, and Madame de Rémusat. (Ginn & Co, Boston.)

The schools should not fail to observe our national holidays and the birthdays of our noted men. "But where shall we get the material?" the teachers ask. Among the books that will prove of great help is a small one issued by March Brothers, Lebanon, O. This contains programs for Washington's birthday, Arbor day, Decoration day, Fourth of July, Thanksgiving day, Christmas, and the birthdays of Lincoln, Longfellow, Whittier, Holmes, Bryant, Emerson, Lowell, Carleton, and Mrs. Stowe.

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How Insects Pass the Winter.

Each of the winter forms of insects mentioned can withstand long and severe weather—in fact, may be frozen solid for weeks and retain life and vigor, both of which are shown when warm weather and food appear again. Indeed, it is not an un-usually cold winter, but one of successive thawings and freezings, which is most de-structive to insect life. A mild winter en-courages the growth of mold which attacks the hibernating larvæ and pupæ as soon as, from excess of rain or humidity, they be-come sickly; and it also permits the conactivity of insectivorous mammals and birds. Thus, moles, shrews, and field mice, instead of burying themselves deeply in the ground, run about freely during an open winter, and destroy enormous numbers of pupæ; while such birds as the woodpeckers, titmice, and chickadees are constantly on the alert, and searching in every crevice and cranny of fence and bark of tree for the hibernating larvæ.

Of the creeping, wingless creatures which can ever be found beneath rocks, rails, chunks, and especially beneath those old decaying logs which are half buried in the rich vegetable mold, the myriapods, or "thousand-legs," deserve more than pass-ing notice. They are typical examples of that great branch of the animal kingdom known as arthropods, which comprises all msects and crustaceans. Each arthropod has the body composed of rings placed end has the body composed of rings placed end to end and bearing jointed appendages, and in the myriapods each ring and its append-ages can be plainly seen, whereas in the higher forms of the branch many of the rings are so combined as to be very difficult to make out.—Popular Science Monthly for

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It will contain sixty-four monuments and statues, including Grant's tomb, to be dedi-cated next April. It will have forty-eight cated next April. It will have forty-eight cemeteries, comprising 3 600 acres, and containing a silent population of 4,000,000. Its public schools will contain 326,000 pupils and 7,282 teachers. Its police force will aggregate 6,509, and its firemen 2,125. New York and Brooklyn alone have 2,138 miles of streets and 991 miles of sewers. The capacity of the water works will be 72,700. capacity of the water works will be 503,700,oco gallons, and the miles of water mains number 1,378.

Within this mammoth city there will be 1,093 churches, with 720,771 parishioners, and 300,000 Sunday school scholars. The and 300,000 Sunday school school sitting capacity of the churches is 469,159. The aggregate value of church property is \$68,718,000. There will be sixty-three libraries, containing 1,924,000 volumes, thirty art galleries, fifty-four theaters, with a seating capacity of 88,000, eleven halls for music and oratory, with a seating capacity of 38, ooo, eighty-one clubs of established social standing, having 48,000 members, two big universities and ninety-three other educational institutions.

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The March magazine number of The Outlook contains an editorial entitled "The Story of Jonah," in which Dr. Lyman Ab-Story of Jonah," in which Dr. Lyman Ab-bott gives his views of the two meanings of this Biblical narrative. The newspaper dis-cussion which has been going on concern-ing Dr. Abbott's recent sermon on this topic, and the widespread absurd mis-re-porting of his utterances make this article of particular interest.

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A handsomely printed little pamphlet contains two essays read by J. E. King before the Business Teachers' Association in Chicago, Dec. 30, 1896. The subjects are "A Rational Method of Teaching Bookkeeping and Business Practice" and "How Shall we Teach Commercial Law?" In the former Mr. King has explained the system of teaching bookkeeping of Williams & Rogers, Rochester, N. Y. The points he makes are that the results which the pupil is required to get are definite and positive, both as regards knowledge of the subject and arithmetical computations; accuracy is secured, both in the applications of the principles and in the mathematical results, by the use of independent illustrations and varied price lists, both of which features are original with this method, as is also the use of a complete reference book or key by which the teacher is enabled easily to verify results; science and art go hand in hand, i. e., instruction and practice alternate throughout the course; in devising the method the authors have kept constantly in view the limitations of the school room, and the fact that business pupils are not business men; the method of teaching bookkeeping and business practice is exemplified in a carefully graded text-book, four prac-tice pads, and three mail packages. The essay on the teaching of commercial law, as coming from a practical man is also worthy of careful consideration by educa-tors. The pamphlet should be in the hands of every teacher of commercial classes.

One needs no better proof of the enterprise of American teachers and their desire to take every possible advantage of oppor-tunities for improvement, than to look over the list of students attending the summer school at Harvard university. There were school at Harvard university. There were 637 students in attendance last year, and among these were professors of colleges, superintendents, and principals of high schools and academies. Some went for the superintendents, and principals of high schools and academies. Some went for the purpose of learning methods, while others sought subjects with which they were not familiar. The university authorities have steadily maintained these courses for the benefit of teachers, although considerable effort has been made to have the courses more popular in their character.

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